MARCH 1986 ISSUE 3 95p

YOUR SINCLAIR

NEW!



V
OCEAN'S MEGAGAME UNMASKED

ROBIN OF THE WOOD
YE OLDE POSTER MAP

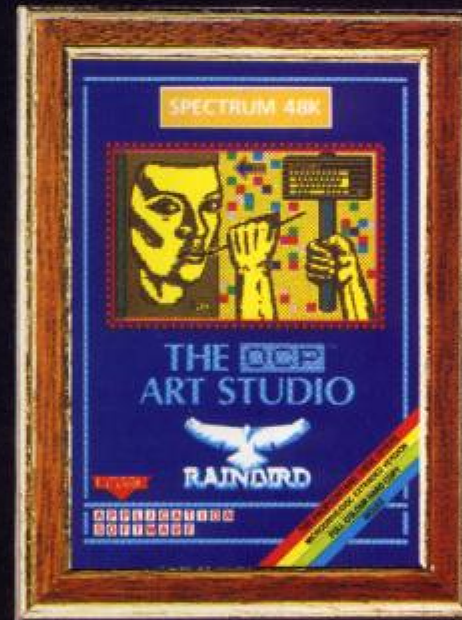
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inside YOUR SINCLAIR

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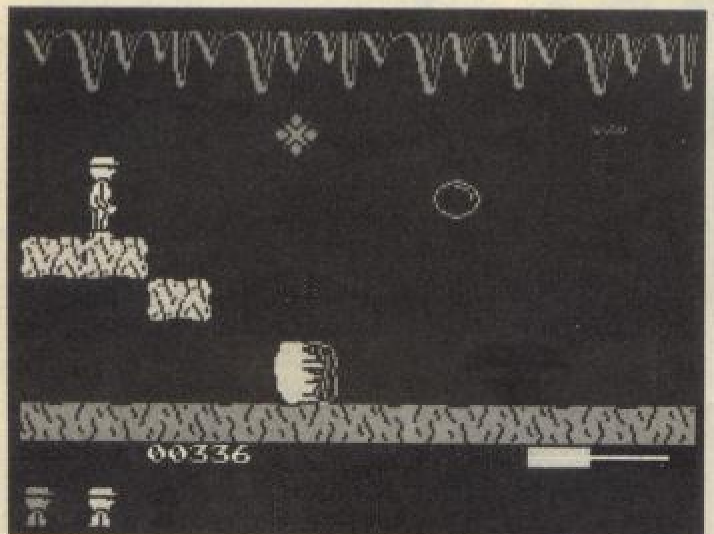
FRONTLINES

X

This is a U trailer for an X rated product. Satyr Software has just released *Posthorn* for the Spectrum. Described as a game for adults it combines the tension of Strip Poker and the fun of Postman's Knock. The mind boggles 'cos there's no sound and no piccys — not even dirty ones. The whole thing takes place in the mind, probably a good thing too!

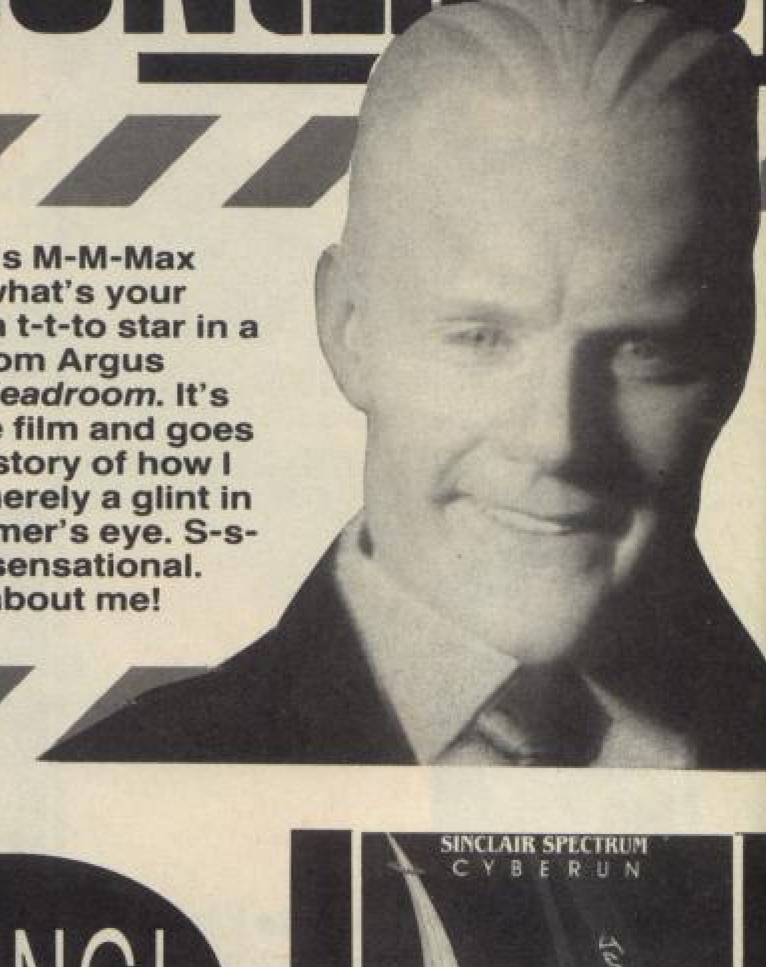
Posthorn is available from Posthorn Despatch Dept, PO Box 1, Spennymore, Co. Durham priced at £15.50.

Tasman software is to release Tasword Three *after the huge sales success of* Tasword Two. Tasword Three *will run on microdrive only and include many additional features. There's a sophisticated built-in mail merge, up to 128 characters per line, tab stops and many print options such as, headers, footers and page numbers. You'll be able to get hold of* Tasword Three *now — it'll set you back £16.50.*



Would you turn your nose up at £3? Thought not. That's why we jumped at the idea when Alphabatim came up with an exclusive offer to YS readers of £3 off its game *Robot Messiah*. The game's a superior platforms and ladders job that got a rave review in issue 1. And now you can acquire your very own copy for £4.95 instead of the £7.95 you'd have to cough up in the shops. Send your cheques or postal orders to Alphabatim, 7 Sandringham Close, East Grinstead, W Sussez RH19 4RW. But be quick — stocks are limited.

Hi, my name's M-M-Max Headroom, what's your problem? I'm t-t-to star in a new game from Argus called *Max Headroom*. It's based on the film and goes through the story of how I started, as merely a glint in my programmer's eye. S-s-sounds s-s-sensational. Well, it's all about me!



BOING!

It's Beyond's new game, *Bounces*. *Bounces* is the sport of the future that can either be computer or human controlled. You've got to grab hold of a steel ball and ram it through a goal slot in the ceiling. And if you're really bad and suffering from a bout of depression 'cos of your appalling score you can always go and beat the hell out of your opponent with a special device called a ball smasher. That'll send the ball boys scuttling! Even if it doesn't gain you any more points it's certainly great fun! *Bounces* is due out in March and it'll set you back a sporting £9.95.

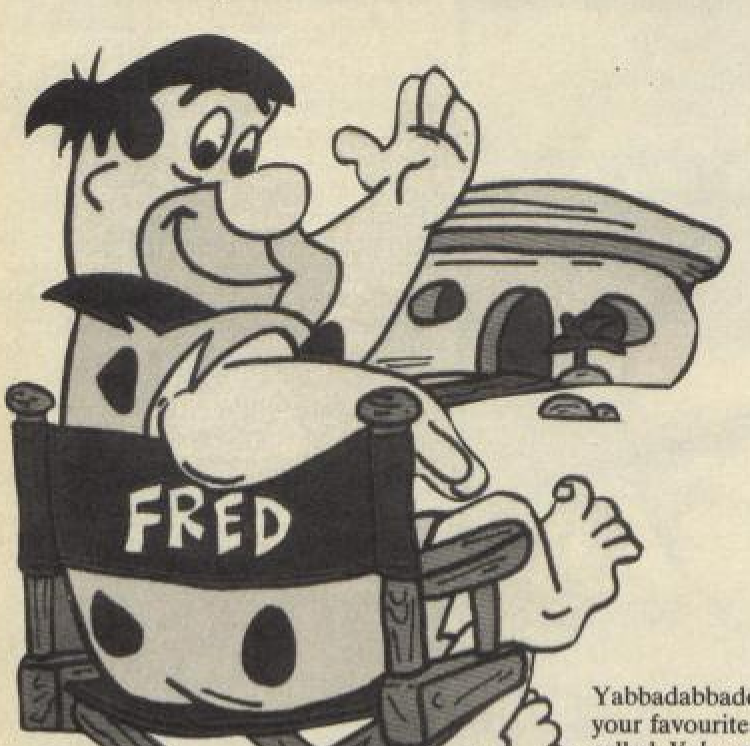


US Gold in its new Ultimate style clothes is bringing out two new titles for the Spectrum — and soon!

Cyberun is set in the darkest reaches of Amoebus Nebula — and boy is that dark. It's an isolated series of stars and planets in the Beta system. And as they say on Amoebus: 'Better anywhere than Beta!' These stars are bound together with a lattice of plasmic energy and the planets are composed of anti-element Cybetron.

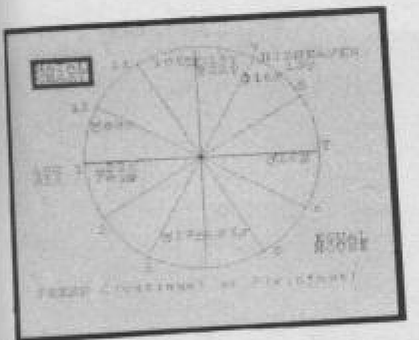
Cybetron is pretty rare stuff and just about everybody in the cosmos wants to get their mitts on some. You've got to control an enormous carrier spaceship called the Crystal Ship and attempt to fight off all the enemy ships and secure a cargo of Cybetron. Sounds out of this world!

Pentagram's also on its way but as yet US Gold has no details. Maybe that's because the silent software house Ultimate is developing the program — mum's the word.



Yabbadabbadoo! Meet the Flintstones. And, stone me, if your favourite cartoon cavemen aren't to appear in a game called *Yab...* well you know the rest, from Argus Press Software.

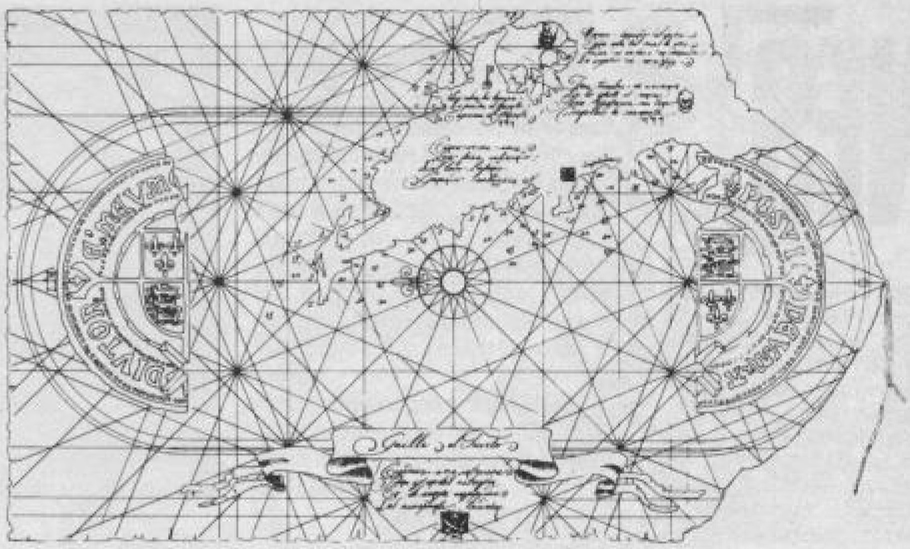
The fun starts in Bedrock — it's such a nice place that all the Flintstones want to live there. Fred in particular 'cos Wilma won't marry him unless he can keep her in the style to which she is accustomed. So the battle is on, Fred must get to Bedrock and build a house before everyone else. £7.95 secures you a mortgage on the property.



Are you kind, sensitive and home loving or vibrant, headstrong and selfish? Well, if you don't know your funny little ways maybe Hisoft's new program, *Your Horoscope*, will shed a little light.

Your Horoscope has been designed for people who take horoscopes seriously, like Russell Grant. (Nobody takes Russell Grant seriously!) If you read them for a good laugh this one ain't for you. The program is in two sections, the first part a birth chart. Here you have to enter your vital statistics such as, birthday, time of birth and year and it calculates your planetary chart and the effects each planet'll have on your life.

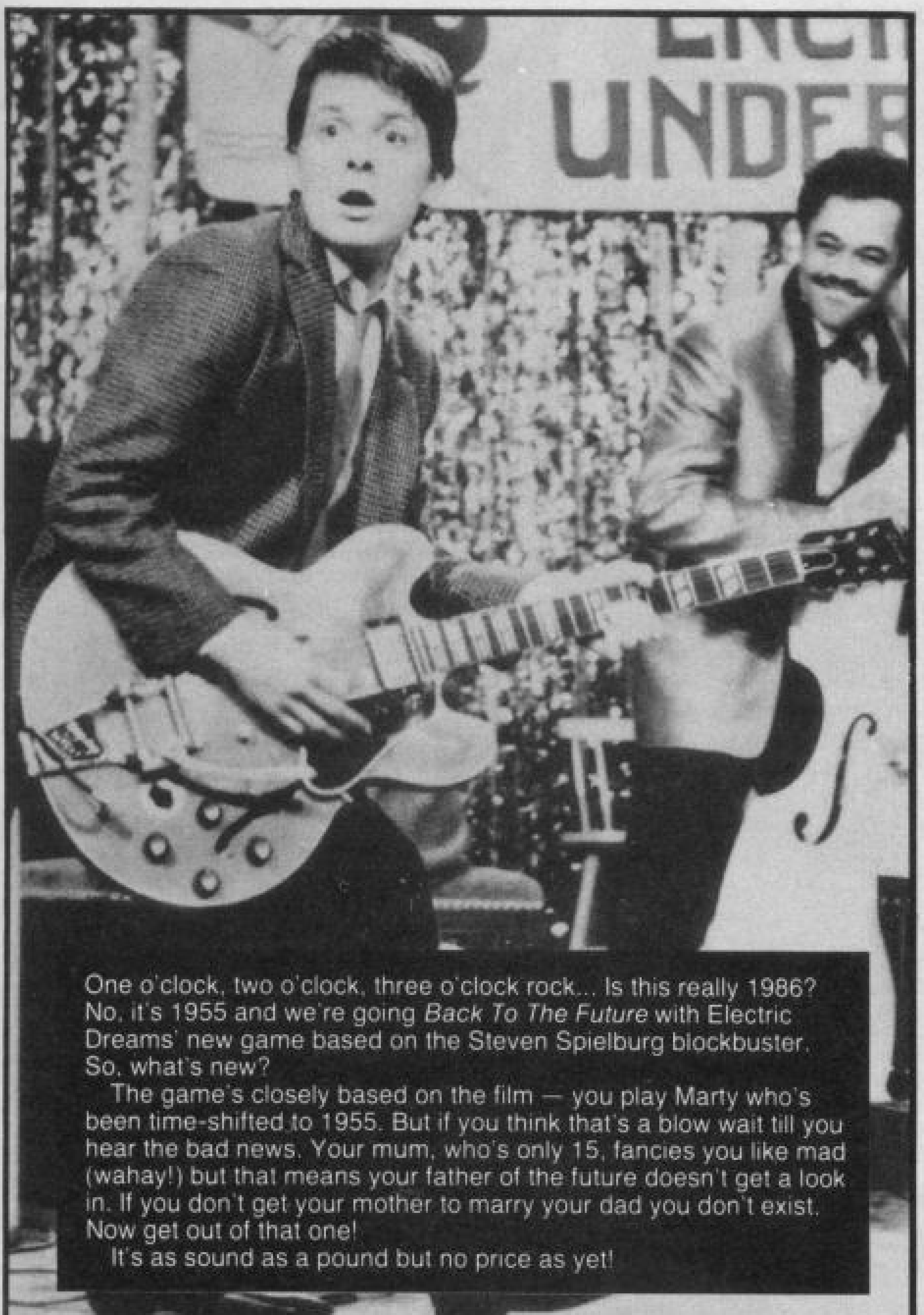
The second section is a newspaper style horoscope that you can try out on your friends. They'll learn that they're going to fall madly in love with tall, dark handsome strangers (*Who me? Ed*) and then get run over by a bus. *Your Horoscope* should be out by the time you read this and will cost £8.95.



Knowing you like we do, ie puh-retty well, we thought you'd like the idea of something for nothing. So, we rang up US Gold to find if it had any freebies just waiting to be snapped up by YS *readers. "How about some* Goonies *maps? The game's just about ready and it's gonna be big. Ger-reat, we said. "Right, we'll put 'em in the post," they said. And did. Brill compo, we thought — ten* Goonies *maps to give away. Maybe even a hundred but we didn't want to get our hopes up. Then they arrived — two huge boxes of them. One, two, three, four thousand six hundred and fifty-two. And that's just how far we got before some smart alec pointed out the number 10,000 on one of the boxes.*
The idea of a compo's gone down the dumper 'cos no one wants to judge ten thousand entries. Just send us in a stamped addressed envelope and we'll send you a Goonies *map or two... Pleeeease!*

PSSSST!

Sabreman's teamed up with Uncle Sam. Computer software giant US Gold has taken control of the manufacturing, promotion, marketing and sales of all Ultimate Play The Game products. According to US Gold it's the 'ultimate new year resolution'.



One o'clock, two o'clock, three o'clock rock... Is this really 1986? No, it's 1955 and we're going *Back To The Future* with Electric Dreams' new game based on the Steven Spielburg blockbuster. So, what's new?

The game's closely based on the film — you play Marty who's been time-shifted to 1955. But if you think that's a blow wait till you hear the bad news. Your mum, who's only 15, fancies you like mad (wahay!) but that means your father of the future doesn't get a look in. If you don't get your mother to marry your dad you don't exist. Now get out of that one!

It's as sound as a pound but no price as yet!



Talking of planets, which we weren't, Martech is off into space with its new package called *The Planets*. And by Jupiter, the program's designed to give you a 'unique insight' into the Solar System.

S'amazing! There's a map to show your craft's position, a computer to land and auto-pilot the craft, a data system that provides information on each planet, a sampler that displays details of the atmosphere and surface and a general information option.

***The Planets* costs £14.95 which is an awful lot of Mars Bars (Mars geddit?) but for that you get two cassettes and an instruction booklet.**

T'zers...

Pay attention now if you don't want to miss out on all the software gossip for the new year. Word's out that CRL's bringing out a game based on a new film. But... CRL is taking a leaf out of Ultimate's book and keeping its lips sealed. All it would say is it's an arcade game (no, you don't say?) and "definitely different". Can't wait!

I've also heard it on the grapevine that good ol' Maxwell's Mirrorsoft is to publish all Alphabatim's products, the first of which'll be a new extended version of **Robot Messiah** for the Spectrum 128K — when it actually arrives.

Mirrorsoft is so wet it's decided to bring out **Knightlore** under the sea. All I know is that if you piddle about under the water for too long you get the bends. I just hope he's got his frog suit on!

Talking of the case of the missing Spectrum 128, news is that Sinclair has plans to bring out three new machines this year. And no, they're not C10, C15 and C20's. It looks like the Spectrum 128'll be available very soon, and the QL Plus looks set to be out by the time you read this. This machine is likely to be CP/M compatible and sport built-in disk drives.

The Sinclair portable was scheduled for the end of April but alas it's been a bit shy and probably won't appear till we're singing Auld Lang Syne next New Year. Rumours are that Sinclair is having problems with the flat screen display but it's pretty likely the machine'll have a 3½" disk drive, use CP/M and be Spectrum compatible.

Absolutely everybody's got their finger in the 128 pie. Mikro-Gen is currently converting **Three Weeks In Paradise** for the 128, Audiogenic is producing an extended version of its **Icon Graphix** program and Hewson Consultants nearly has its hundred screen version of **Ted il Technico** ready — well, the machine's still in Spanish remember.

Wow! New Concepts had so much success with **Surf Champ** that it's following it up with **Ski Champ** — the first fruit yoghurt simulation game. Could be the flavour of the month!

Hello, hello, hello! What 'ave we 'ere then? The new game from Mind Games called **The Force** — it doesn't even feature luscious Luke Skywalker either. It's all about those delightful boys in blue, the Old Bill! You play the part of a Chief Constable who's gotta deploy his PCs to keep the crime rate down. But it's stressed that you mustn't use too much force — keep your truncheon where it belongs. The Met's even been involved in the development of the program — maybe it'll improve their image. Perhaps they should rename it Brute Force! Mind how you go now!

FRONTLINES



A-onea, A-twoa, A-threea. Gorgeous Greg takes it all by one fall, two submissions and a bang on his funny bone. So you fancy your chances as Gorgeous Greg? Well, Melbourne House has the game for you — *Rock'n'Wrestle*. Produced by the *Fist* team it's a wrestling game that promises to pack a punch.

Gorgeous Greg must battle his way through nine opposing musclemen and, boy do they sound strange! There's Lord Toff, Bad Barney Trouble, Flying Eagle, Vicious Vivien, Mission Breaker, LA Bruce, Angry Abdul, Molotov Nick and Redneck McCoy.

Rock'n'Wrestle's one of the first 3D sports simulations that allows you to make 25 different moves. Eat your heart out Giant Haystacks. *R&W* costs £8.95 and will be available later this month.

Fire! Fire! Somebody quick ring 999 and ask for the Fire Brigade... Thank goodness they've arrived. Oh no it's like Mrs Pepperpot all over again. Could this be the case of *The Incredible Shrinking Fireman!*

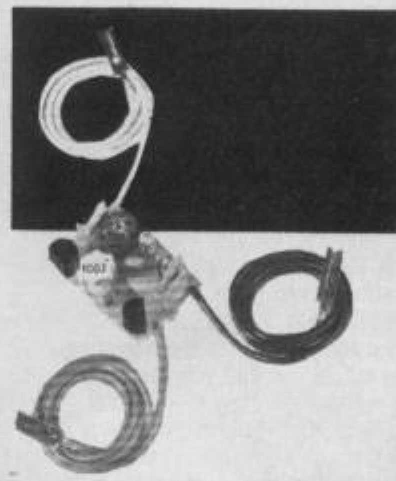
No it's a case of Mastertronic's new arcade adventure game in which you play the part of the unfortunate fireman who's shrunk rather suddenly. They left him in the water too long! It's your job to try and get back to a more normal size again. And the game's gonna be real torture too 'cos you've got to find a rack to then stretch yourself.

Mastertronic is also converting the 64 (spit, spit) version of *Spacehunter* for the Spectrum that should be ready in March. Both games cost £1.99.



'Seen one of them before!' Yes, for all those of you paying attention back in issue 1, this is indeed another piccy of a Sound Boost from Saga Systems that diverts your Speccy's sound output to the telly. Plus it has a Save/Load switch and cassette connectors. And all for £9.95. Well, that's what it cost then. Now, in an exclusive offer to *YS* readers, Saga is offering the Sound Boost for just £6.95. All you have to do to save the three sovs is clip out this piece of prose (or use a photocopy) and send it with your cheque or Postal Order to Saga Systems, 2 Eve Road, Woking, Surrey GU21 4JT.

But as well as saving you £3, Saga is also sending a further £3.04 for every Sound Boost sold, to the Off The Hook appeal. This new appeal, launched just before Christmas by Rod Cousens, the man behind the *Softaid* tape, is being set up to help young drug addicts. And very soon you can expect to see another compilation tape along the *Softaid* lines on behalf of the new appeal. Let's hope it's as successful as *Softaid*.



FROM TSAR HIP



Ah, come ze day of ze glorious revolution all ze bugs vill be lined up against the wall . . . zen zey'll get it right between ze bolsheviks!

Besides it's easier to deal with the bugs than uncover the real culprits behind the cock-ups. You never know, one day it may be me. The main disaster area from *YS2* was in *Program Power*. Both programs were s'posed to include a hex loader. Both *looked* as though they included hex loaders. Neither did! How it happened I dare not hazard, but my jolly reader, art persons being art persons, I reckon they thought the hex loader wasn't pretty enough for them, so they decided to use part of the end of the Basic loader instead — on both listings! Panic not though — the solution to this problem is easy. Just tack what is labelled as the hex loader onto the end of the Basic loader and then use the hex loader from issue 1.

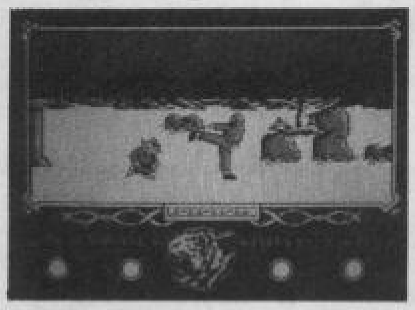
And while we're on the subject of hex loaders, what the hell do you do with them? That's the question many of our new readers are asking. **David Ainsworth** from Atherton, f'rinstance, can't understand how to enter hex code. Well David, that's why we print (or, as in this case, forget to print) a hex loader. These loaders are only tools to be used to get the code in — after that they have no further use. Type in the hex loader, run it and then you can type in code. When you're asked for 'Address?' type in the number in the first column. When asked for the 'Hex 8 bytes?' type in the alphanumerical characters in the middle 8 columns. But leave out the spaces. Finally, type in the checksum — that's the number after the equals sign at the end of each line.

What's up with this *Chopper Mission* prog in issue 1? Well, the problem's caused in code line 33288. It looks like the line reads OF 07 5A 48 01 01 0C 07 = 207. Close but not close enough, I'm afraid. You forgot the blotch on the film — 0C isn't 0C at all, it's 0E! OK!

Now if you've been reading *YS* as man and boy (or woman and girl) then you can skip the next bit 'cos you've probably already heard it before. In the early days, we used to have a capitalist printer that insisted on printing pound signs (£) instead of hash symbols (#). Now the printer's got stroppy again and has proceeded to print a sort of curly closed bracket that isn't, if you see what I mean. So, to get the better of the cursed printer once more here's what you do. Whenever you see a character you can't tell from Adam, replace it with a hash sign (#).

It was easy enough to type in **Tony 'Slim' Samuel's** brilliant *Maclone* program from issue 2 — using it was a teensy weensy bit more tricky. Okay, we gave you the RAND USR call address that implements the code but what we didn't let on was that you have to press Symbol Shift/Space to get it going. When you hear the whining sound press either 1,2 or 3 depending on which *Maclone* feature you want. To get back to Basic just press 4. Dasvidanya, comrades!

Troubleshootin' Petrovitch



Here's something to get your teeth into! Gremlin Graphics is releasing a text and graphics adventure called *The Way Of The Tiger*, based on the fighting fantasy books called, you guessed it, *The Way Of The Tiger*.

The game's set in the mystical world of Orb where you play an orphan with a strange crown shaped birthmark on his thigh. Apparently this is all pretty significant according to the various monks scattered about the land that we asked!

So, you're trained to be a master of the martial arts by the all ancient and powerful — or is that ancient and all powerful? Naijishi, Grandmaster of the Dawn. Your warm-up consists of three sections; unarmed combat, pole fighting and samurai sword fighting. Everybody go kung fu fighting!

Ocean is certainly keeping busy this month. Apart from the release of *Superbowl*, there's *V* (see the preview this issue), *Hunchback The Adventure* and *Knight Rider*.

Knight Rider's based on the popular TV series about super sleuth and macho man Michael Knight and his computerised car, Kitt. It's the same old story — somebody's out to start World War III and poor ol' Mike's gotta stop 'em.

There are three sections — the first is a map of the terrorist centres in the USA, the second a simulated drive in your Kitt car and the third another map that shows the terrorist hiding places. For a cool £7.95 you too can get your hands on a copy of *Knight Rider*.

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QL NEWS

Assemble it, edit it, paint it, copy it, debug it. Whatever you want to do with your QL, you'll find news of the latest products here.

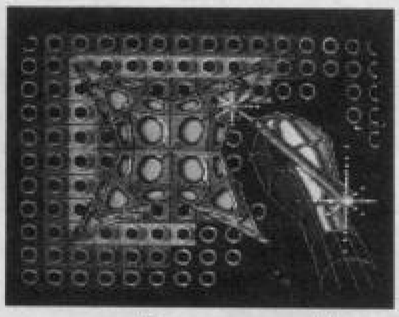
Hisoft has just launched *Devpac QL* written by our own Andy Pennell. The package is an editor, assembler and debugger. And as the assembler is part of the editor you don't need to keep switching between them — just press a key. The debugger is based on the standard *MonQL*.

The package also multitasks so even while you've got something assembling you can still edit in another window at the same time. The editor was designed so that you can use it in the same way as Metacomco's but Hisoft claims it's a whole lot faster at assembling and editing. In fact, Hisoft claims that it's the fastest available on the market and it can make use of disk drives and extra RAM if you have them. *Devpac QL* costs £39.95.

QL-Paint has just been released by Sinclair though it was originally written and released as *GraphiQL* by the Scottish software house, Talent. The new improved package includes icons and drop-down menus that offer you control over fifty commands. To create your pictures you can use brushes or pen strokes, colour or texture fills and you also have commands for rubber banding and mirroring. And remember, on the QL you don't have those awful problems with attributes like



some machines we could mention!



WD Software has just released *JOSS*, 'the human interface for the Sinclair QL.' And you thought you were the only human to interface with your QL! *JOSS* is an acronym for Joystick Operated Software System but you don't need a joystick to operate it — the keyboard or a mouse will do. *JOSS* is designed to make file-handling commands less tedious to use and to eradicate the human error that can creep in when you're copying files. All you have to do is move the cursor over your chosen file with the joystick and fire. It's designed not only to save time but also to avoid mistakes if you're not too hot at typing. But if you're expecting a screen full of trendy icons, forget it. A spokesman for WD Software said, "There are no funny icons to learn with *JOSS* — it's all done with simple names. After all, words are the tools of adult thought, and icons belong in the nursery." Perhaps someone should've told the people who produced *QL-Paint*!

Your own human interface will cost you £15 on microdrive or 5¼" floppies or £17 on 3½" disks.

Sinclair Research has sent us a list of amendments and updates to the QL Software Guide that we published in issue 1. But first it would like us to point out that the QL prefix is a Sinclair trade mark and can only be used on products that are published by Sinclair or endorsed by the company. So, *QL Home Finance* by Buzzz, *QL Cash Trader* by Quest, *QL Integrated Accounts* by Sage Soft, *QL Decision Maker*, *QL Entrepreneur* and *QL Project Planner* all by Triptych and *QL Gardener* by Gordian Computing Services are all published by Sinclair Research.

It also seems that the package listed as *Small Business* by Sage Soft is really *QL Integrated Accounts*. We'll bring you any other news and amendments as they come in.

YS COMPO WINNERS

Well, here's the moment you've all been waiting for, a round-up of all our recent competition winners.

Star Compo

Congrats to our top ten stargazers who've spotted (as near as dammit) all the stars in that compo in that star of yore, *Your Spectrum* 20. Star STX-80 printers worth £159 are on their way to:

John Boere of Utrecht, The Netherlands; Graham F. Dunn of Dorchester, Dorset; Gary Lemon of Aldershot, Hants; P.J. Cowe of Arbroath, Scotland; Nigel Mortimer of Ilkley, West Yorkshire; Mathew Sleightholme of Pontefract, Yorkshire; B.J. Carter of Bethnal Green, London; Ian M. Hillery of Durham; E.M. Bloofield of Norwich, Norfolk; Jonathan Watters of Bangor, County Down, Northern Ireland.

Capital Book Compo

What a bunch of capital answers you gave to issue 20's Capital Radio compo. The first 25 to tune to success with the winning answers a, b, c and win a copy of Interface Publications' *Capital Radio Book of Computers and Simple Programming* were:

Sonia Griffiths-Glover of Willerby, E. Yorks; Richard Eltom of Stockton Brook, Stoke-on-Trent, Staffs; C. Sumner of Wellingborough, Northants; Peter Holloway of Carshalton, Surrey; Adrian Ferre of Havant, Hants; Brian R. Gordon of Mauchlinf, Ayrshire, Scotland; W. Armstrong of Aberdeen, Scotland; Nuno Paulo Santos of Lisboa, Portugal; C.J. Allen of Dartford, Kent; A. Weston of Pontefract, W. Yorks; Richard Hodgson of Orton Malborne, Peterborough; Evan Mason of Harare, Zimbabwe; David Kerr of Stewarton, Ayrshire, Scotland; J. Macnally of HMS Manchester; H.R.J. Henley of Norwich, Norfolk; Jim Brown of Dreghorn, Ayrshire, Scotland; Liz Baker of Eccleston, St. Helens; Ian Slowey of Mill Hill, London; Steven Rundle of Myatts Field South, London; Martin Wickes of Victoria Farm, Coventry; Caroline Giles of West Molesey, Surrey; Darren Blanchard of West Molesey, Surrey; Owen Dunn of Wellingborough, Northants; Lee Fish of Cramlington, Northumberland; Riccardo Tamisari of Aberdeen, Scotland.

London Game Compo

Friday Soft's issue 20 London Game compo was obviously not a soft option for these top twenty winners with the answers c, b, a. Copies of *The London Game* are on their way to:

Simon Minter of Telford, Shropshire; M. Drummond of Appleby in Westmorland, Cumbria; Lennart Jedeblad of Goteborg, Sweden; Nikolai S. Christenson of Silkeborg, Denmark; A. Dyke of South Woodford, London; David Storey of Huyton, Merseyside; S. Rowe of Worthing, West Sussex; Robin H. Powrie of Blairgowrie, Perthshire; Brian Wayne Barker of Kings Norton, Birmingham; Liz Coleman of Harleston, Norfolk; J. Roberts of Woolton, Liverpool; J. Champion of Clapham, London; Danie. O'Mahony of Fordingbridge, Hants; J. Lister of Velges Farm, Exmouth; Sean Meads of Oakley, Nr. Basingstoke, Hants; Neil Parker of Skelmersdale, Lancs; G. Burns of Armadale, W. Lothian; Karen West of Andover, Hants; Ian McVicar of Dalmuir, Clydebank; Jan Wikstrom of Mala, Sweden.

Fairlight Compo

All's fair in the compo war, or at least it is for the ten winners of our Fairlight compo, who are:

Graham Raistrick of Sprotborough, Doncaster; Matthew Worsdell of Swindon, Wilts; K. Bradley of Blyth, Northumberland; A. Herron of Blyth, Northumberland; Jason Newman of Whittlesford, Cambridge; Mark Duncan of Glenrothes, Fife, Scotland; Callum Yorke of Dunoon, Argyllshire, Scotland; Antonis Tsourinakis of Piraeus, Greece; A. Hall of Hill Top, Nuneaton; Mr Andrew Harvey of Carnforth, Lancashire.

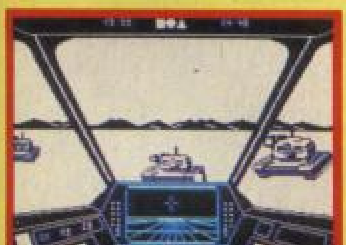
Thunderbirds Compo

Thunderbirds are GO! — going the way of the following 30 winners:

Mr L.P. Powell of Leominster, Herefordshire; Mr A. Wheatley of Telford, Shropshire; P. Marshall of Cottenham, Cambridgeshire; Mr Ian Jacklin of Bosley, Nr Macclesfield, Cheshire; Nick Lee of Sittingbourne, Kent; Jon Rose of Bognor Regis, West Sussex; K. Woodhouse of Warley, West Midlands; Gareth Barber of Rochdale, Lancs; Paul Serbert of Harrogate, N. Yorkshire; Christopher Thomas of Cannington, Nr Bridgewater, Somerset; M.E. Homer of Watford, Herts; Christian Luff of Lancing, West Sussex; Neil Ogilvie of Watford, Herts; I. Brough of Market Drayton, Shropshire; Alan Bell of Basingstoke, Hampshire; Paul Wadsworth of Northfleet, Kent; Mrs Anita Howick of Andover Estate, London; Lee Pearson of Bolton-on-Dearne, Rotherham, S. Yorks; Steve Jones of Sutton Coldfield, West Midlands; Mr C. Huckstep of Rochester, Kent; Glen Kerr of Walsall, West Midlands; M.J. Hall of Newcastle, Staffs; Graham Holliday of Chatham, Kent; M.P. Hyne of Stableford, Herts; Spike Williams of Northwich, Cheshire; Marc Goude of Duston, Northampton; Niall Simpson of Crumlin, Co. Antrim, N. Ireland; Alistair May of Elgin, Moray, Scotland; Gareth David Roberts of Belfast, N. Ireland; Iain Sinclair of Inverurie, Aberdeenshire, Scotland.

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LETTERS

YOUR SINCLAIR, 14, RATHBONE PLACE LONDON W1P 1DE

The writer of the Star Letter will receive a fabulous bundle of software.

YS EXPOSED!

Dear whoever gets to read this little winner.

Having seriously and scientifically studied the letters that get published in your monthly organ I'm now in a position to announce the completion of a "Get Your Letter Published In *YS*" blueprint.

The first essential ingredient of a letter is a catchy first line. Boring or polite instructions such as "Dear *YS*" or "Dear Ed" or "Dear know everything and make everyone else look a right twit Pete" are out of the question. Better try the good old trusty originals such as "OK!" or "What's all this about..." or better still "While I..." (this last one is highly recommended). Abusive remarks about the Ed or Pete are of paramount importance. Although rudeness is not tolerated, phrases such as "Dirty Rats" are quite welcomed and may indeed assist your chances.

Problem identification, or in other words the reason why you've actually gone to the trouble of writing, is a very delicate point. First of all you don't want people to realise that the only reason you've written is to actually see your letter in print. So, you must think up a problem that's both interesting and unusual. *Do not* under any circumstances let yourself indulge in problems such as: "My joystick is simply not working" or "It's been twelve months to the day since I sent a cheque to a mail order software company and I'm still waiting for the game." These problems are real and obviously no one knows how to deal with them. It's best if you try some unreal ones to which you're bound to get one or more answers. For example, try "My disk drive started to sing *The Sound Of Music...*" or "My Speccy doesn't like bacon for breakfast any more". If you like to appear technically-minded you must, and I stress this point, find a chip with an unpronouncable name or long code number (e.g. BBCKGB13.9876CIAMI6) and attach to it a problem with which the *YS* staff are only too familiar. So, "The inside lining of the cable that connects the BBCKGB13.9876CIAMI6 chip to the RAM pack feels shaky when I've used 47K of memory, while writing a program for my little sister's Barbi-Doll accessories" is a legitimate question to which there must be an answer. Be warned, questions such as: "What exactly is a ROM?" may not receive proper attention.

Like any decent *YS* reader you must, of course, claim a Trainspotter Award. When doing so make absolutely sure that what you've spotted is original. Here I would like to let you into a little secret that I discovered a couple of days ago. While drinking coffee I accidentally spilled it all over my copy of *YS* and to my amazement the pages got wet! Yes, you've guessed it. The paper used by *YS* is not water resistant. As I'll not be claiming an award for this shocking revelation it's up to you to expose this inexcusable fact to the wider public. Needless to say, if you've spotted 128 spelling errors in one page you'll not only *not* get your letter published but it'll probably bring an angry Ed around to your house (and I understand that Ed isn't a pretty sight even when he's sober!) *(He's not a pretty sight at the best of times! T.P.)* Note: tearing pages from the mag and then claiming an award for missing pages normally does not work. If in absolute despair do, by all means, try it.

Finally, make sure that your name and address are very clearly stated in your letter; in the event you do win the Award it'd be a wise decision to let them know where to send it. In the event you've sent an abusive letter make sure that your name is an anagram of Frank Bruno or someone equally fearsome.

C Stephanou
Colchester

PS I must emphasise that your letter must have one or two post-scripts (they don't necessarily have to be relevant).

PPS More than two post-scripts may jeopardise your chances.

Ha, you don't stand a chance of getting this letter published.
Ed.

AARD LUCK

Alright you lot. Don't think you can fool an adult aardvark and his trainer with a boob like the one in your *Rasputin* review. Since when was 'C' the third letter of Rasputin?

It is (as the aardvark tells me) the third letter of Rachael (who? Well, she's the reviewer) Smith's name. Great new mag but don't think the aardvark won't be round if I don't get an award pronto.

Andy 'hi guys told you I'd find one' Orchard
Kings Lynn

PS Gollum was a *JSW* fanatic and deserves whatever he gets!

An anteater replies: this is what comes from mixing too closely with aardvarks — they're real boneheads. A moment's thought and ten year's learning Russian would've told you that C is indeed the third letter of Rasputin in the silly, sorry Cyrillic, alphabet.

DUNKILLIN'

I've reached area 13 and scored 303300 after 3 hours of continuous play and a countless number of ruthless killings on Elite's *Commando*.

If anyone's beaten my score, rush it to *Your Sinclair* but be quick as I've just reached area 12 with 9 lives left....

Robert Dunning
Middlesbrough,
Cleveland

Even more impressive is the way you can calmly kill with your right hand while running off this letter with your left. The pen is indeed as mighty as the sword — and the machine gun and half a dozen grenades! But I don't know what you're telling me all this for — tell that horrible heap Hex Loader, send him a piccy and you could be chosen as one of his heroes. Now get back to your gunnin'.
Ed.

ARISE...

Sir Editor,

I'm sending you this little letter just to say that after an evening — and part of the morning — of solid addictive and challenging playing on my faithful Speccy, I finally completed that superb megagame, *Rasputin*.

"I don't believe you!" I hear you cry. But wait, before you reach for the shotgun, I'm not talking about the £7.95 original but the demo version that starred on the first issue of *Your Sinclair*.

Rasputin is a first-class computer game and it took me well into the early hours of the morning to complete. When you jump onto the letter N, the screen lets off a few high beeps and flashes a few times. You're then left to wander back and forth through the four previous screens until you pull the plug.

Now concerning your mark two *YS*. I never thought I'd say this but here goes. What an improvement! *(Phew, I didn't know what you were going to say! Ed)*. When I picked up the mag in my local newsagent and flicked through the jam-packed and colourful pages, I thought to myself, "Robert, 'cos that's my name, you'd be a mug not

DOODLEBUGS

Keep on doodling — it's a doddle! Send your cartoons to Doodlebugs, *YS*, 14 Rathbone Place, London W1P 1DE. There's a prize of a new game for each cartoon printed.



Here's a strip from Ian Butterfield all about Si'n'Clair.

LETTERS

to buy this!" So, I did, and my money was certainly not wasted. Keep up the good work all you busy-bodies at YS.
Robert Galbraith
Hastings, East Sussex
President of the 'I'm a crawler' club.
PS Notice the 'Sir' at the beginning. I shall put in a good word for you(?)

Well, I just wish you'd put in a good word for me with the next (ex) reader. **Ed.**

What a tragedy, what a waste. All those extra pages and you waste them on trash (sorry, you call them games).

However, I do recognise your grand strategy. Within the year you plan to poach all the readers from the Beano and the Dandy. Rest assured, you will succeed.

But as for me, I'm going back to the Beano and Dandy (as soon as my subscription to Your Dan Dare, sorry again, *Your Sinclair* runs out). I find the content of those comics more intellectually stimulating than the juvenile hysterics of your reviewers.

Why not be honest and disassociate yourselves from computers. Trust me, you would retain the same clientele. Writing computer games programs is obviously clever, playing them and writing about them is moronic.

So, as I bid you farewell, some advice. Change your ways or most certainly go the way of other magazines — under.

Oh, by the way, thanks for the free cassette. I've used it to save a dozen or so useful machine code routines. There was nothing of importance on it was there?
Les Panselle
Cardigan, Dyfed

Did I say something wrong? Still, there's something I'm not quite sure about. If writing games is such a jolly wheeze why is playing them so moronic? Does this mean that writing books is clever but reading them stupid, or building cars is bright but driving 'em a bit dim. I only ask! **Ed.**

CHEAP SKATE

Let me tell you about *Spellbound* from Mastertronic. It's a fantastic arcade adventure that's menu driven. The graphics are big, clear and well drawn and it's truly an adventure not just a jump-and-collect like say *Knightbore*. *(Hang on, has someone slipped an ad into this letter? Oh, there's more of it...Ed)*

All of this for a mere £2.99 which represents terrific value for money when compared with, for instance, *Underwurlde*. Pocket money software has finally become better than full price games.

Let me just point out before the poison pen letters arrive from the Ultimate fans that I have great respect for all software houses, but I think more highly of firms that can produce quality programs for a low price. Plus, not all budget software is great. I can name several games that aren't worth 10p let alone £1.99. It's just that for every trashy cheap game I can find two good ones. After all, a pathetic game like *Great Space Race* can cost the earth but I prefer to risk under £3 than over £14 and I reckon most other people would too.
P Bocij
Normanton, Derby

Right, no cheap cracks at the end of this letter — well, except for that one! I agree with you about Spellbound — it's a great game for the money. My only reservation is this — would a budget game like Cylu for instance, have ever been produced if it hadn't been for that full price pacemaker, Knightlore? You can bet that within six months there'll be Fairlight clones and Elite clones all at under three quid. But would Fairlight or Elite have ever seen the light if all software was priced at that level? I don't know the answer so I'll just have to wait for the letters from those of you who do. Oh, and just one thing, if you do send any poison pen letters can you address 'em to Pete — we've been slipping strychnine into his coffee for the last couple of months but it doesn't seem to have any effect. **Ed.** *Mmmm, I thought it tasted rather better recently.* **T.P.**

ERAUQS BACK!

General congratulations on the transition from one YS to the new one. However, this brave move does present a couple of problems.
1) What do we call it? It was *Your Speccy*, now... *Your Sincy*? Yuk!
2) Don't give up on your brilliant machine code and utilities features — things like *Samsynth*!

Otherwise, it's all great stuff — well done (no, that's not a creep in disguise.)
Oh well, byeeee.
Thomas 'Erauqs' Smith
Lewisham
PS I couldn't give a Castlemaine XXXX who Gollum is.

1) Call the mag anything as long as it's not Your Stinky.
2) Just take a look at Max's Switcha in this issue.
Byeeeeeeeeeee. **Ed.**

TRAINSPOTTER AWARD



I hereby claim a Trainspotter Award. I was reading through *Frontlines* when I came across an article about someone who had won £250 in one of the YS competitions. I read on and discovered that £50 went into his bank account and he spent the other £250 on a Commie 64. "The other £250?" I thought. So, I went and plugged my brain in and after a few calculations I discovered that something was wrong! Realising I could get a Trainspotter Award out of this I picked up a pen and started to write.

Anyhow, great mag and how about a review of *Back To Skool*? *(Done master! T.P.)*
Adam Featherston
Swinton, Manchester
PS Why is the picture of *Your Sinclair* (in the ad in *Your Spectrum* 21) different to the issue I bought.
PPS I don't suppose that entitles me to another Trainspotter Award, does it?

No it ruddy well does not. But you will get one and just 'cos I'm feeling jolly generous so will our next spotter. **Ed.**

First off, I think *Your Spectrum* was good but *Your Sinclair* is superb value for money (crawl).

However, (brawl) after reading through for the umpth' time. *(Coo, you give me the umpth'! Ed)* I noticed something wrong in *Frontlines*. I refer to the article on Ian Flory collecting his prize money. I immediately 'programmed' my Spectrum with:

```
10 LET PRIZEMONEY = 250
20 LET BANK = 50
30 LET CHANGE =
PRIZEMONEY — BANK
40 PRINT CHANGE
```

and it kept coming up with 200. I even put a For/Next loop around it but still 200.
Now, either send me:
1) The name of Ian's bank, or
2) A free subscription to YS for 35 years or
3) A coveted Trainspotter Award.
Otherwise I shall keep posting you Des O'Connor LPs.
Bob Shaw
Jarrow, Tyne and Wear

Right, so that's one Trainspotter Award for Adam and one for Bob which makes, er...

```
10 LET ADAM'S AWARD =1
20 LET BOB'S AWARD = 1
30 LET TOTAL NO. OF
AWARDS = ADAM'S AWARD
— BOB'S AWARD
40 PRINT TOTAL
```

That'll be the last time anyone questions my maths or they'll get what's coming to 'em — or rather they won't! **Ed.**

SMALL PRINT

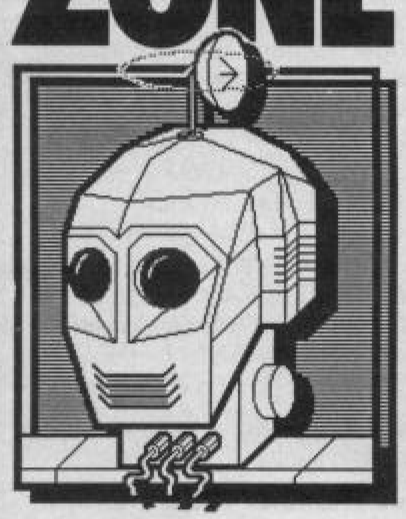
I've been flying about in Elite for a week now and haven't spotted Halley's Comet yet!
(No comet! Ed.)
Scott Hill
Cardiff

PS Love and kisses to Teresa Maughan and good luck for the new-look mag.
Anthony Empson
Plymouth
(Mmmmmm, and a big wet sloppy one to you too. T'zer xxxx)
(Yeuch! Ed and T.P.)

PPPPS *(As you can see this letter had a nasty attack of the editorial red pen! Ed)* When using the ROM routine at address 0, try instead RAND USR 9880. Now isn't that a lot prettier?
Malcolm Atkinson
Rochdale, Lancs

I claim this week's Trainspotter Award because Vyvyan in ish 2 has four stars instead of three on his forehead. Make another mistake like that and I'll bash you scumbags over the head wiv a Speccy.
Michael Sellar
Edinburgh, Scotland
(Trainspotter? Huh! Not only has Vyvyan got four stars on his head but since when has YS been weekly? British Rail might be getting there but you certainly ain't! Ed)

HACK FREE ZONE



Are you a hexophiliac? You *are*? Well, now's the time to join that computer-generated, whizzo games player, Hex Loader, for some hex loaded action.

Zhzzt! Hellooo. Loader's the name, and games is my game. 'Ow you doin'? Blasting away I hope. I'm in a really good mood today, so I promise I won't have a go at anyone. No, really, I won't...okay, maybe just the one, to keep my hand... er, tentacle in.

Y'know I *really* wish I hadn't mentioned *Marsport* in this column. I'm up to my buss in mail about it at the moment. Puh-lease, no more! I have all the solutions I really need and probably enough to give away as firelighters. (Heh-heh). More on this in a minute.

First in the queue this month is **Trevor Breeds** of Welling in Kent. **"I am writing to you as I must be one of the first people to reach Elite on the Spectrum..."** Just a cotton-picking minute there, I don't believe this. There must be a catch. Sorry, do go on. **"I did this by loading the game when the title page with 'New Commander Y/N' comes up, type 'Y'. Then when the menu 1. 'New Commander's Name.' 2. 'Save Commander', or 3. 'Exit' pops up, select '2', enter your name and the 'press play on tape' prompt should flash up. Don't press play on tape, instead press the space bar, and the security code for Elite rating will be shown. then all that remains is to press '3' and start playing at Elite standard."** Simple really. I should've known it was too ea:ly in the life of the Speccy version of *Elite* for someone to blast their way into 'Elite' rating. Well spotted, clever Trevor, but what earthly (or even spacely) use is it?

I'd still like to see some more hints for arcade games rather than arcade adventures. Okay, so I know there are a lot of arcade adventures about, at the momento, but really, that's no excuse to play them all the time. A balanced diet is everything, you know, and troughing your way through just one type of game is puh-retty bad for you. You could end up with scirrosis of the joystick, or summink!

Ahhhhhhh! Here's one. A good old shoot 'em up. **Jon Langton** of Pickering in North Yorkshire writes to say how much he enjoys *Starquake* and, although he doesn't go into details about why (although I *specifically* asked you to do that! Waaaaah!), he does say that he knows all 15 teleport codes. Over to you, Jon. **"The codes are: VEROX, RAMIX, ULTRA, SONIQ, AMAHA, AMIGA, QUAKE (near the planet's core!), ASOIC, ALGOL, EXIAL, IRAGE, TULSA, DELTA, KYZIA, and OKTUP."** Great Jon, that's... **"I have mapped all 512 screens, and found them to be in a 16 × 32 grid. The top 16 show the stars."** Okay great thanks, Jon... **"The screen with the RAMIX teleport in it is the second line down from the top, at the far right."** Shuddup! Thank you Jon, that was great. (Phew!) I know this is *your* column as well as mine, but I like to slide a word in edgeways just once in a while.

Keith Bradley and **Aynsley Herron** (names to conjure with there) of Blyth in Northumberland sent me a thick wodge of paper about the amaaazing *Fairlight*. Look, I *know* I've covered this before, but this is such a well documented solution I had to print it, didn't we printer? (Bzzzt! Prrrp-p-pp! Roger-dodger, Hex! — Peter the Printer) **"Just writing to inform you that we have completed *Fairlight* without the use of any of the POKEs in the last issue..."** WHAAT? Brrrt. Ting! Phzzzt. AAGH! How dare you mention that word in my column. Urgh! (Click. Bzzzzzzzz) *(Get on with it! — Ed.)* **"We completed the game on 14th November and were greeted by the message, 'You have succeeded in your quest, The wizard is free. The Quest continues in *A Trail Of Darkness*."** Any hints at all? **"Oh yeah, plenty if..."** Just a few, there's not a lot of room left, y'know.

"The items required to complete the game are the Scroll, one Cross, two Potions, the Crown, the Book and two Keys. The Wizard is entrapped in the Tower which you're looking out of on the loading screen. To free him you need to collect the scroll and the crown from the courtyard. When playing the game," Ahem, I'd like to see you do it when you're not playing the game... do go on! **"it's always best to dispose of all guards, by killing them then dropping them near a whirlwind until it takes them away. The trolls are best covered by a barrel after killing them by placing a barrel over the spot you killed them. This prevents them from reappearing.**

"After collecting the hourglass cross the drawbridge, using the hourglass, and pass the troll. Follow the walls, and you will find a door hidden in one of the walls. Put the crown on view, and you'll be able to open the door. Inside the tomb, push the body to one side and push one of the slabs off. Dropping down into the next tomb, collect the book, go through the door to appear beside the cliff edge outside. Use the scroll to get back to the courtyard, and head for the room with the cross. Collect the cross and potion, and kill the guard in the room of the deadly flowers. The key you will find is the key to the Keep. You can jump past the first monk, but you'll need to throw potion at the next one and the cross at the last one. Kill one guard and climb the final stairs. Use the barrel from the ground floor, jumping on it to get you up into the last room. Give the Book to the wizard, making sure you collect the key first, and he'll change into a monk. When the monk pushes you out, you may now leave the castle, provided you've the crown, and the key for the courtyard gate. That's it! Finished! Oh, except can I say thanks to my son Steven Bradley for his help?" No you can't. I've been in a bad mood since you mentioned P*K*s... Humph.

Well, it seems that everyone who bought a copy of this mag a couple of months ago has bought and finished*Marsport*, because I got a pile of letters, that would choke a blue whale, telling me how to finish the game. **Paul McLean** of South Shields and **Stephen Roberts** from Fife were just two of the people that wrote in. Well, for those of you who haven't finished the game but would like to, here is part one of the solution by my mate **Paul Harkin** of Manchester:

"The first thing to do is get a weapon. Go in the down tube on Coma D2 to the Elis level. Then go to G2 on this level and get a gun permit from the supply unit. Take the adjacent tube to the Daly level. Now go to D2 on this level and put the gun permit in the key unit. You can now take the power gun from the locker. If you go to the infomat on F3, you will get a clue as to what makes the cake. The actual items are: water (D1), baking tin (A3), and flour (C2)." Pretty duff cake! Oops. **"These can be joined by putting them in the factor unit on F3. The cake you receive gives you access to the bakery. The dough in the bakery can be used later. Now take the charcoal from G1 and then get down to Elis from G2. Go to C3 and enter the danger room. Take the bomb from the supply unit and shove it down the refuse shute to disarm it. You're now in sector H. Go to H3, NOT H4, and take the down tube to the Joly level. Get the gauze from the supply unit and take the up tube to Iaxa level. Go to C4 where the vidtex says 'Danger! Use filter to breathe'. Put the gauze and charcoal in the factor unit to make a gas mask. Enter the danger room, and the mask will protect you. Leave it in the locker for further use."** He he he he he he. That's all your getting for now, my little hot dog sauces. You'll have to wait on the back burner until next time to hear the rest! Quick! No time left! Er... my fave games... *Gyroscope*, *I of the Mask*, and *Glass* Send me letters... or my opticals will get all cobwebby! You know the address... Oh no, the end...! (Click bzzzzzzzzzz)

HEX'S HEROES

Wheeeee... Phut. Phut. Phut. Ahemm. That's better. It's great to get those circuits buzzing again. And without further ado, let me introduce this month's fearsome threesome, starting off with our regular wacky photo — y'know, Mr Lovely Legs, Jonathan Miller in ish 1, Snowy White the snowman from ish 2 and now we've got Nick Srepastianos of Greece pulling off a very convincing Clark Kent look-a-like. Haw Haw! Hang on, what d'ya mean that's what he usually looks like? Ooops! Anyway, Clark, er... sorry, Nick here has flown in with a rather impressive score of 2,000,000 on *Spy Hunter*. No problem for a super-man, eh Nick?

Next in the hexophiliac line up comes weirdo Noel Wallace, yea, the one who braved the problems of the joysensor in the joystick review last ish. Noel has achieved great greatness by finishing the *Rocky Horror Show*. *Janet! Brad! Janet! Dr Scott! Rocky! Uughh!*

And last, and probably by all means least, comes little Brett Collier, straining a smile after scoring a bounty of $999900 in *Ghostbusters*. All too much for you, eh Brett?

Well, I can't stay 'cos Pete's after me power point for his scalectrix set. But do remember to send me your photos and high scores — the wackier the better! Ta ta... Phizz... Burp...



Nick Srepastianos
Spy Hunter/2000000



Noel Wallace
Rocky Horror Show/ Completed



Brett Collier
Ghostbusters/$999900

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SCREEN SHOTS

Raving reviewers *Luke C, Alison Hjul, Gwyn Hughes, Steve Malone, Max Phillips, Rick Robson* and *Rachael Smith*, are back with this month's great games. Even Troubleshootin' Pete's got in on the act!

COSMIC WARTOAD

Ocean/£7.95

Gwyn Wanted: a hero. Must have: nerves of steel; accurate marksmanship; goggle eyes, green, slimy skin and webbed feet! Yea — who wants to look like Harrison Ford when you can be a Cosmic Wartoad? And with your Queen transformed into a (Yuk!) human female by the 'orrible Rygellian Slime Beasts (Boo!), and chained beneath a descending buzz saw (Gasp!) then you have no time to lose.

Ninety, real-time minutes is the limit as you cross the void of Rygellian Time Nodes via your Cosmic Willy. Cosmic Willy? Who but Denton Designs could provide not a cursor but a tadpole? The Slime Beasts ain't glad to see you though when you arrive at a node you'll find a welcoming committee. Defeat this and you can occupy the node, but blow it and you lose a life and return to the previous node. Lose three lives (Oh no!) and you're returned to the start, but the chainsaw is ever nearer your prone Princess.

Don't worry if you don't fully understand all this nonsense . . . sorry, wildly exciting plot. The arcade action element as you travel between nodes takes three distinct forms, of graded difficulty. You'll have to clear the screen before your arrival is established, though with Slime Pawns reproducing and Sludge Slugs falling on you it's no picnic (Aww, and I bought the ants!).

Between bouts of frantic blasting comes the strategy element that sorts out the toads from the tadpoles. Your path across the eight by eight Time Grid allows for different courses, and some nodes are more useful than others as they provide Time Tunnels, if you can find the keys. You'll need others to recharge your gun. And all the while you'll be seeking to avoid the worst foes and collect the objects that you need to free the Queen.

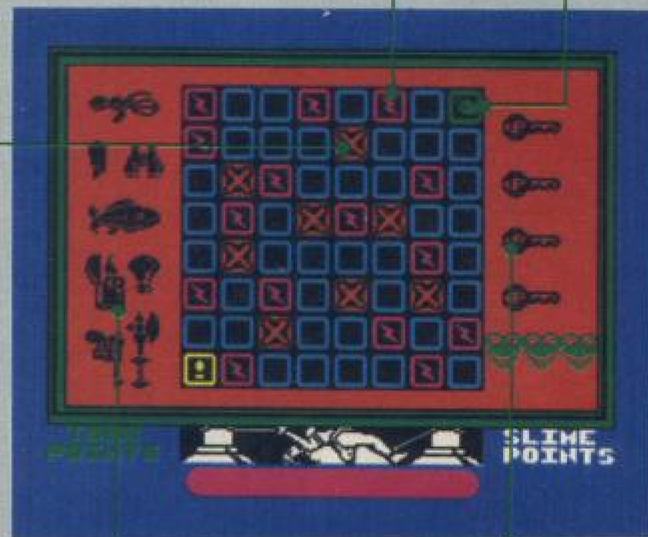
With its iris-ing windows and great graphics the game is as stylish and idiosyncratic as you'd expect from the people who gave you *Frankie*, and it's pretty difficult. But who could resist when the prize for success is a webbed hand in marriage — and the price of failure is that you get to carry her home in two separate bags!

Graphics	■■■■■■■■□□
Playability	■■■■■■■■□□
Value for Money	■■■■■■■■□□
Addictiveness	■■■■■■■■□□
	8

Okay, Einstein, get this! If you want to cross the road of time faster take a Time Tunnel. An unlocked link turns white and stays that way, but first you'll need a key — see!

Purple means power, not Prince, in the Rygellian Void. Nodes like this give you a chance to recharge the batteries of your Constant Recoil Alpha-Pellet Gun . . . and even Rambo ain't got one of those!

Here's Willy, your cosmic cursor, all ready at the start to move you one square at a time towards your goal, the bottom left hand corner.



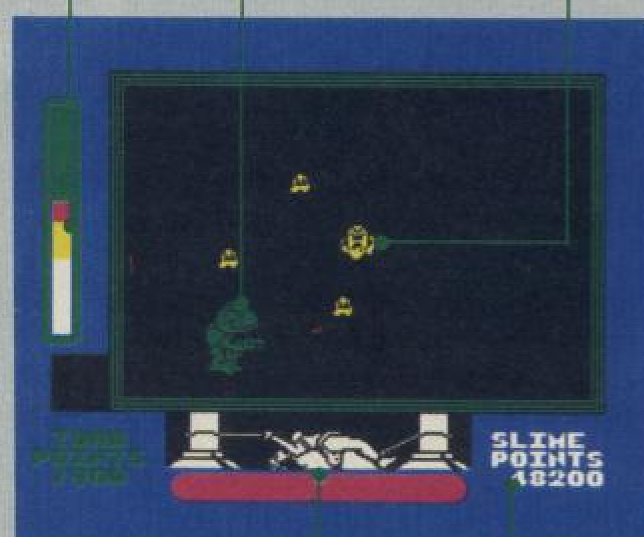
And here are the bits and bobs that no self respecting Wartoad could be without on a rescue mission. Things like an Intergalactic Whisk and a Chronosynclastic Stanley Knife which are littering the void.

Here are the keys to taking the Tunnels, and luckily the Slime Beasts have left them lying around the nodes. Locate them and you too can start the parked car that blocks your passage.

If your shooting's up to scratch you'll see the bar chart indicate a reduction in Slime power by turning from yellow to white. The real nasties rate red status though.

Handsome beast, aren't you. Quite an amphibious Andrew Ridgely. Gun raised you're having a go at the nasties in an ordinary, cyan node.

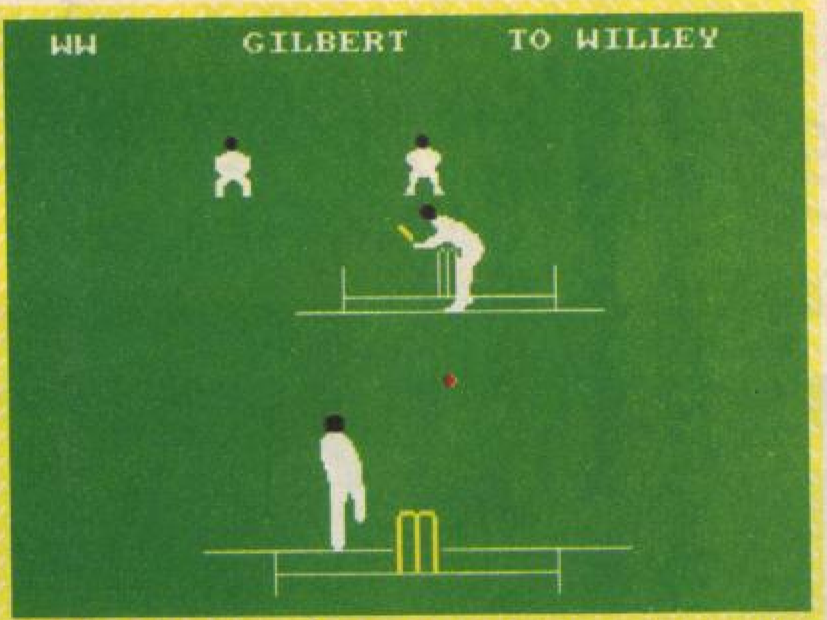
One type of opponent, the Slime Master and accompanying Pawns. They're small and deadly and reproduce at a frantic pace to protect their Master and attack you!



And here she is, the Queen, the chainsaw out of sight above her. Can you fight through to reach her before she croaks (Sorry!)?

Along with the accompanying score across the way, this is how you measure your progress. If you can get a good enough differential you have the chance to temporarily neutralise the oppo with a Times Ultrasonic Robotic Defender!

GRAHAM GOOCH'S TEST CRICKET



Audiogenic/£9.95

Rick That Golden Boy of Leytonstone, Graham Gooch often looks good but fails to deliver on the cricket field, and I'm afraid the same goes for the simulation that bears his name. Gooch is known as Zapata to his colleagues 'cos of his habit of taking siestas during a game — and I think the programmers must've dozed off half way though this one.

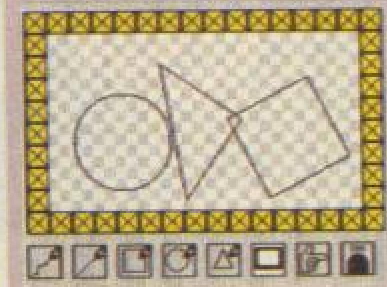
The game purports to simulate 40, 55, 60 overs and 2 innings games. You also have a two player facility as well as the trad computer opposition. You can punch in your own team or accept the program of current England/Australian players — more accurate here than some football games I could mention. You give the players their batting and bowling averages and must pick a wicket keeper. The computer rejects too low an average but not very high ones, regardless of batting order, so your number 11 can average 100 with the bat. The computer seems to completely disregard this anyhow during gameplay — so is it all just padding anyway?

The gameplay's really peculiar. We all know one day games and Gooch in particular, zap along, but at 12-15 runs an over? The graphics give you a behind the bowler's arm close-up — good bowling simulation here — showing batsman, 'keeper and slip. When the ball is struck you get the same view of the off or leg side — and you've no choice of field placings. You can control line but not length or speed when bowling. When batting you have minimal control over whether you defend or attack — but you only have two shots within that mode. Technically, you have more control in the two innings game — but it still rattles along at the one day rate, and very low scores regularly ensue.

So, if you're a real fan of leather on willow this one's worth a very cautious look.

Graphics / Playability / Value for Money / Addictiveness — 3

SCREEN PLAY



Macmillan/£8.95

Rick *Screenplay* sets out to provide not just the technique but also the means to make your own films. Of course, to realise such mega-ambition you need access to a video that'll automatically record the program you've compiled. But even without it you can still create a finished article which you've scripted, plotted, produced music and sound effects for and finally shot and edited.

As in other Macmillan packages the accompanying booklet is crucial. It gives a brief history of the moving image from the Victorian 'flickers' through cartoons to cinema and TV.

The software has five basic menus each with its own subs. Wordshot is the simplest — use it for dialogue but perhaps most usefully for story boards. Sound track — is just that. The Speccy's musical abilities are limited but this'll let you compose simple tunes in C (bass or treble), in various time signatures. Don't expect too much and you won't be disappointed. Action — the nuts and bolts of your film. It allows you to build sprites on a 16 x 24 grid. A two grid sprite will give you simple animation. Screenshot — lets you design the fixed backdrop and scenery. It uses the same grid as Wordshot. It's a simple art package with several facilities, including free hand drawing plus various paint/pencil/colour/shape options. Finally Take 1 lets you edit your final production, getting six frames to a shoot including up to 12 sprites.

Your productions with *Screenplay* won't be on the Steven Spielberg scale and a casual user may soon be frustrated and disappointed. But it's an informative package and if just one person discovers the magic of the movies through it, then it's worth it.

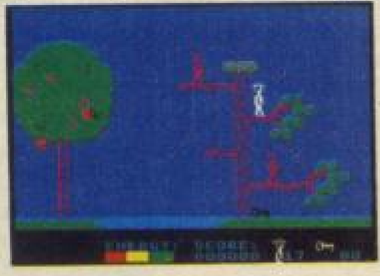
Graphics / Playability / Value for Money / Addictiveness — 7

RAIDERS OF THE LOST RING

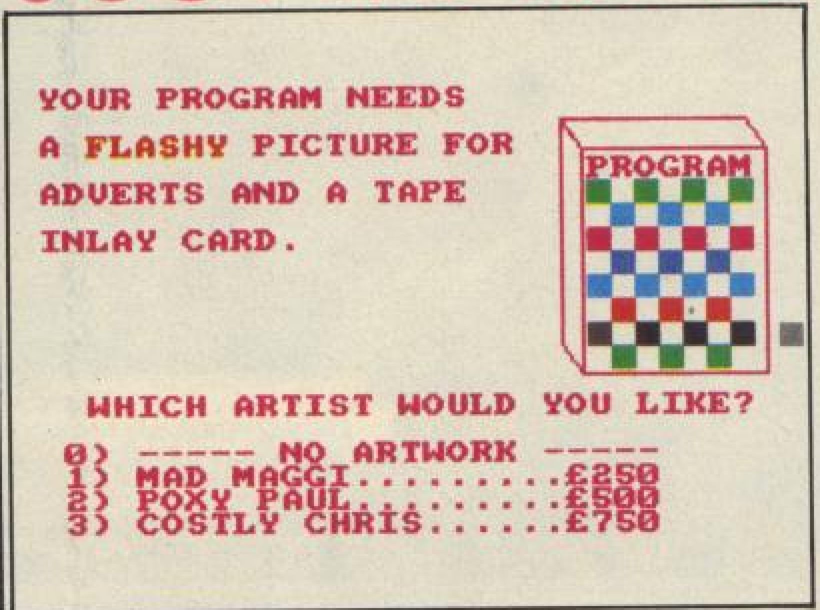
Arcade Systems/£5.95

Steve Indiana Jones has been a gift for programmers ever since he burst onto the cinema screens so the basic plot is familiar — visit the screens and collect the keys. Each of the screens (or the ones I managed to get to anyway) is set in the jungle and you have to swing through the trees to get your paws on those elusive keys.

Graphics / Playability / Value for Money / Addictiveness



JUST IMAGINE



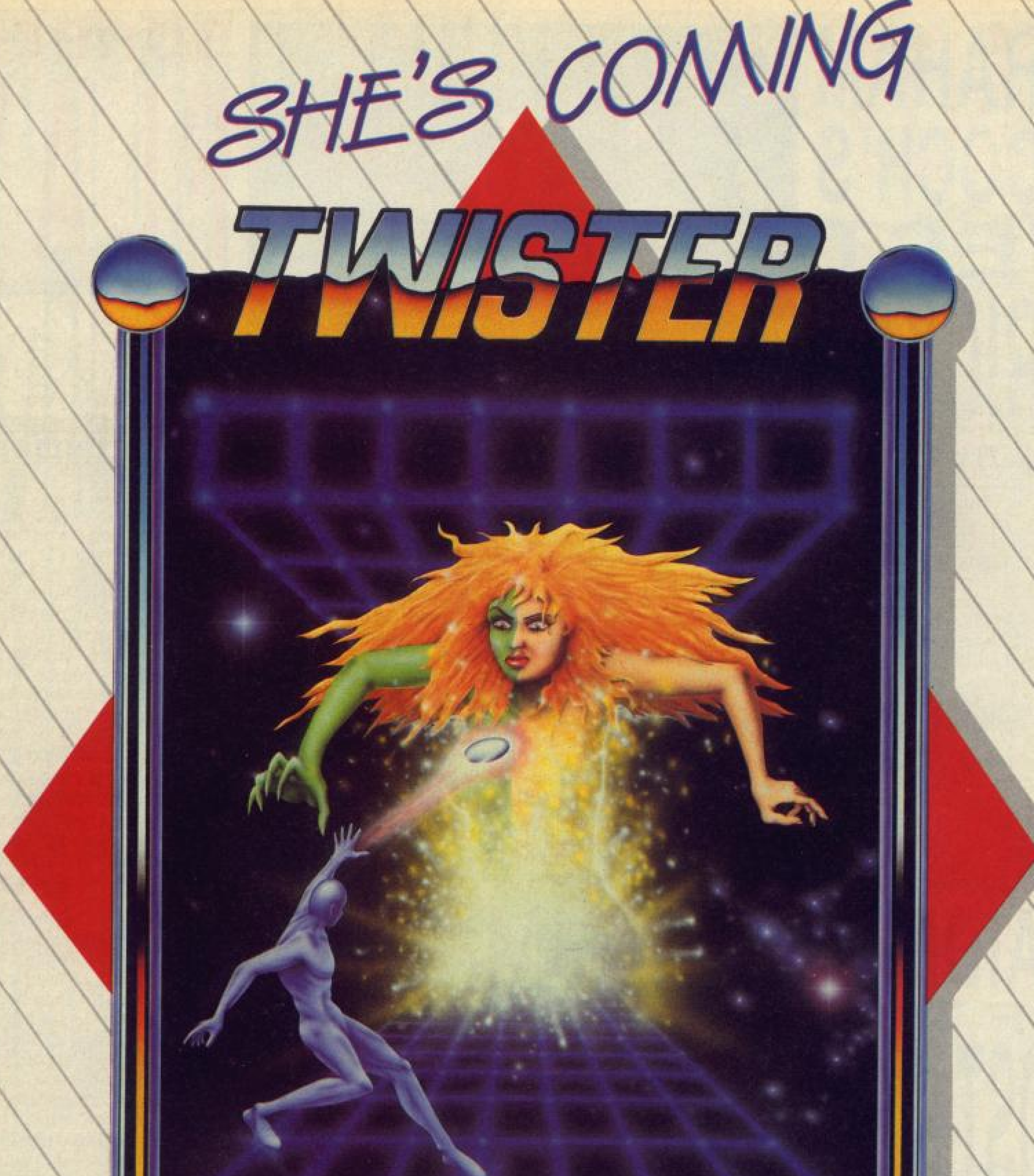
Central Solutions/£3.99

Steve A strategy game based on the software industry can only mean one thing — someone in the biz has succumbed to the overwhelming desire to stare lovingly at his own navel!

The concept of the game is very similar to *Software Star*, written by Kevin Whatsisname of *Football Manager* fame, that came out about a year ago. You have to hype your product like mad, for as little as possible, to shift those units.

Trouble is, this game lacks the polish of *Software Star*, and could've done with some roadtesting and tightening up before release. That might have removed some of the irritating number of keypresses required and some of the more obvious decisions you're asked to make. What's more, the program has the cheek to suggest that software reviewers can be bribed! (Incidentally lads, my cheque never arrived this month).

Graphics / Playability / Value for Money / Addictiveness — 4



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YIE AR KUNG FU

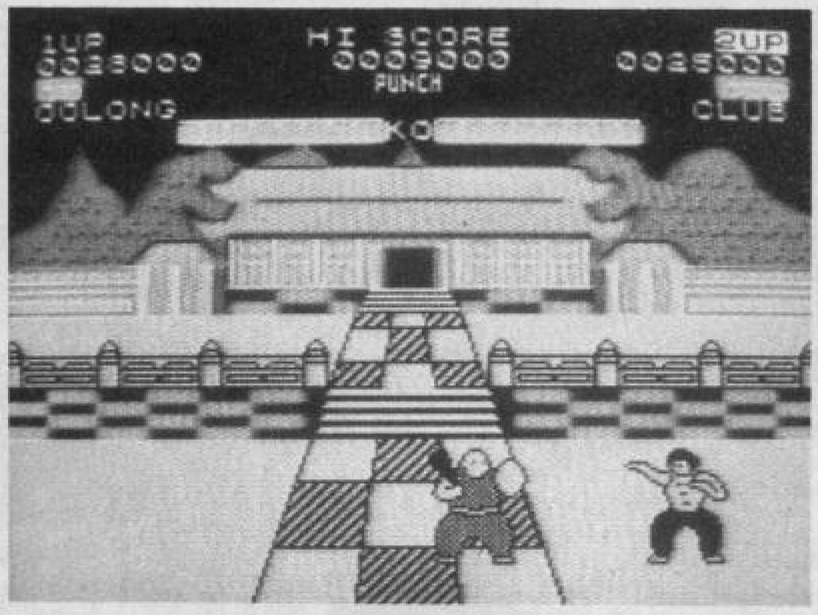
Imagine/£7.95

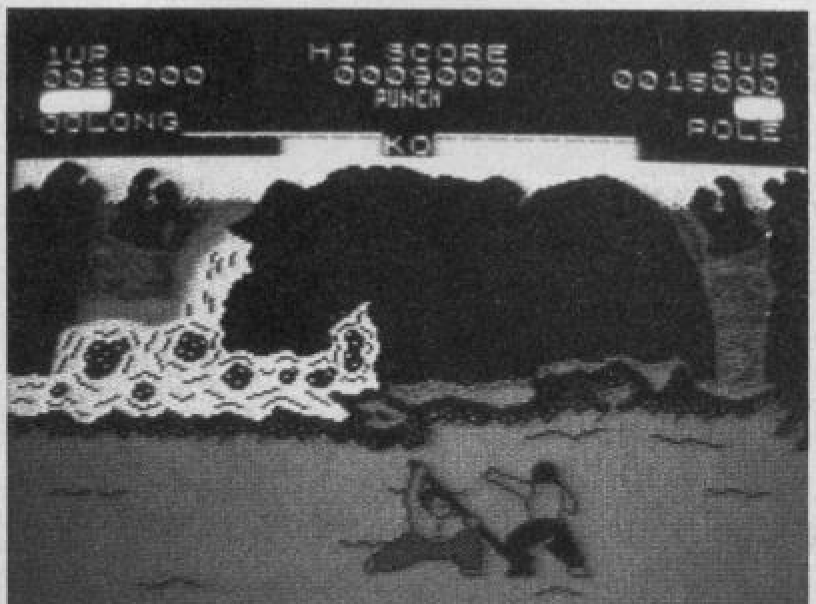
Alison Yieaaarrriiiieeeeumph! That's better — there's nothing like a spot of Kung Fu clobberin' to unclog the tonsils. Yes, we're back on those well-trodden ways of the exploding fists with this conversion from the arcades.

You play Oolong as he hops, skips and punches his way to a grandmastership by defeating a string of nine deadly opponents. Each adversary is different in style and approach and each has a weakness that you must discover and use to your advantage. Take Buchu, the first fighter to face you — a fat devil who nevertheless flies through the air with the greatest of ease. But a series of straight punches to the paunch will lay his flabbiness flat out. Similarly, the rest of 'em come tumbling down as soon as you've mastered the sixteen different possible moves, each of which scores you a variety of points.

Yie Ar has the edge over its opponents if you're looking for variety but still want a fairly faithful martial arts simulation. Like Kung Fu, it junks realism for spectacular effects but it still captures the spirit of the sport that lies somewhere between circus acrobatics and a Glasgow brawl. By comparison, *Fist* looks about as dangerous as a Japanese tea ceremony but it's still the one for the karate purists.

The only problem I found with *Yie Ar* is that it's just too easy. It only took half an hour to reach the final opponent, the Kung Fu master himself, and I was within one blow of toppling him. Unless you're into notching up the points you may just find that your interest starts to wane once you've faced all the foes. Or perhaps I've just played too many similar games.

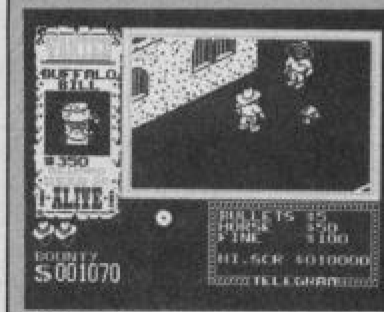




Nevertheless, a good introduction to painless punching if you're into Bruce Lee but bruise easily.

Graphics
Playability
Value for Money
Addictiveness
8

GUNFRIGHT



Ultimate/£9.95

Gwyn Howdy, pardner, and look what jest rode into town. There wuz a time when the newie from Ultimate meant makin' for the saloon but nowadays.... well, we's none of us too sure if they're goodies or baddies.

Hey, I think I recognise this partic'lar varmint. It's that fellah *Nightshade* with a cowboy hat. Sure is the same technique used to draw the western town, the same animation of the central figure.... and durn me, if the plot ain't mighty similar too.

This time you take the sherriff round the town, shooting bandits and avoiding the populace which consists mostly of sassy women who scuttle into you and kill you. I'd rather face up to the James gang, though don't get gun happy with a local lovely or you'll pay fur it out of your bounty. That leaves less money to buy bullets, the price of which rockets faster than a mule that's sat on a cactus. And talking of quad-ru-peds (Ker-spitt! KLANG!!) there's a hoss to be found aroun' town, though as it's of the panto rather than the pinto variety you'll have to do the runnin'.

Now most of the rogues are jest Mexican marauders who sit there waiting to be shot, but every so often you'se gonna meet a gen-ew-ine grade A outlaw, and that's when you'll need all your quick draw marksmanship. Only, durn it, if I didn't wander fur so long without meeting one.

What ah'm tryin' to tell yer is that despite the mildly economic overlay of bullet an' hoss buyin' and bounty collecting, this is another Ultimate repeat and if you didn't have *Nightshade* and you're a fan of shoot 'em ups set among durn purdy pictures it'll make you whoop with joy.

Graphics
Playability
Value for Money
Addictiveness
7

DUNGEON DARE
CLASSROOM CHAOS

Central Solutions/£3.99

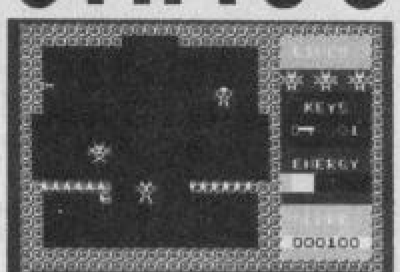
Rick A double-sider of dubious quality from Central Solutions. It might have you in two minds — bin it or swop it!

Dungeon Dare's not a bad little mixture of platform and maze arcade. But a dose of sound effects don't cover up the dearth of imagination involved in the program. Basically you're an explorer trapped in a dungeon, except the graphics prefer to show you as a green blobby thing. You wander in and out of rooms spread over sixteen screens collecting the 38 (or is it 46 — they can't make up their minds) keys necessary to escape. Along your merry way mind the monsters and munch the energy pills — energy loss is a big enemy. The little buggies have a constant horizontal/vertical motion so it doesn't take long to learn how to evade them. Not for the experienced gamer — though I must admit games like this can have a mesmeric hold.

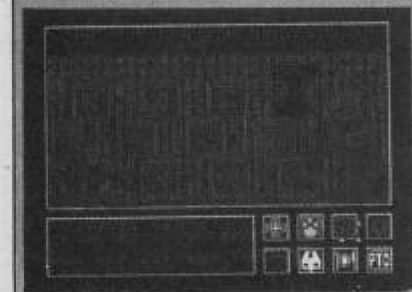
And the tape'd be better without *Classroom Chaos* — a graphic adventure of such monumental boringdomness that any school lesson would seem thrilling in comparison. The school's Gold Cup has been stolen (the bell was the only thing that went at our school) and the head thinks it was you.

The game bears no relationship to the crop of school goodies like *Skool Daze* and *Mikie* out at the moment — but is designed for goody-goodies, toadies and anoraks, which of course no self-respecting Speccy owner would claim to be. People like that own BBC's.

Graphics
Playability
Value for Money
Addictiveness
4



2112 AD



Design Design/£7.95

Gwyn Let me make one think clear — I don't like dogs! And this game features a dog, though it's a robotic one so at least it doesn't foul the footpaths. Poddy is the pooch and in theory he's quite invaluable, carrying things for you, blocking enemy robots — all the things you'd expect of a K9 clone — only I kept finding he was in my way or not waiting with me at a door I wanted to go through.

But that said there's a whole heap here that compensates for the robotic Rover's presence, not least being the plot line. This has the London of the future turned into a computing complex, a maze which gives new meaning to the phrase tangle of bureaucracy. However, if you and Poddy can locate the ROM card codes scattered around you can then disable the tyrannical main computer that's busy controlling various robots of its own to stop you. It fancies another 500 year term of office!

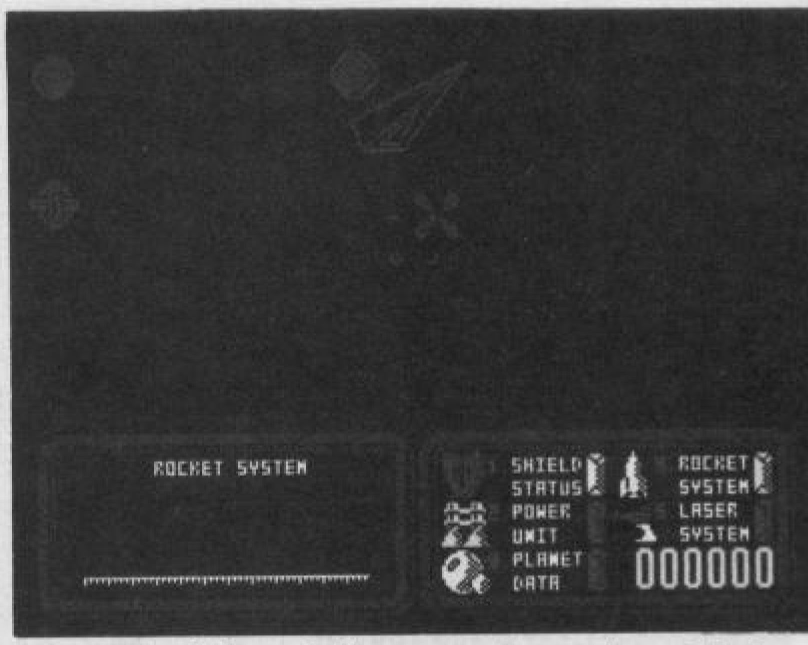
Probably the neatest feature of the game is its graphics, slightly reminiscent of *Marsport* though with depth, so that as you move into a screen it scrolls down and partitions disappear to let you see what lies behind them. That could be anything from the invaluable and inevitable keys to the more dubiously useful, though don't neglect anything, just in case.

As you wander round the corridors of power you'll come across certain problems that are beyond mere picking up. Now it's all down to icon control. While the options are varied it takes a while to get used to them all and they're not printed in the instructions, just via an on-screen Help. There are also several layers of them which can take some flipping through, though eventually they work okay.

All in all a clever arcade maze adventure with some original touches, and that includes Poddy — even though I found him a bitch!

Graphics / Playability / Value for Money / Addictiveness — **9**

BATTLE OF THE PLANETS



Mikro-Gen/£9.95

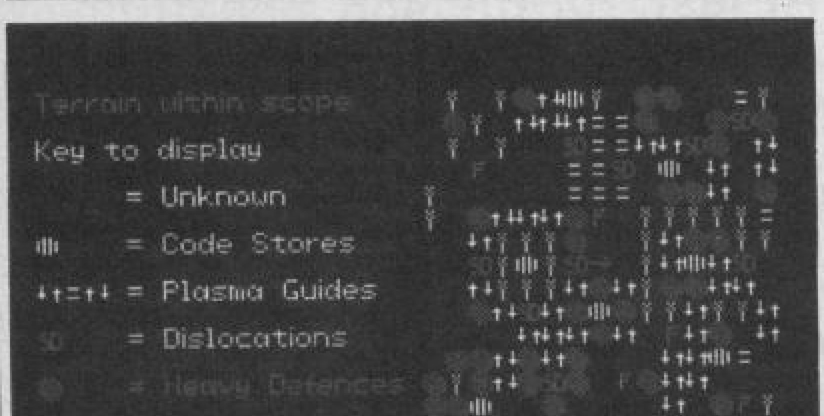
Luke As you've no doubt gathered from the title, we're deep in space for this game ... and if you're looking for a quick comparison, *Elite* is the nearest.

As captain of the good ship Phoenix, it's your unenviable task to quash the evil Zoltar who's declared war on the five planetary systems in your universe. No problem ... if you've got a joystick that is — without one, the keyboard controls turn into a nightmare that'll tie your fingers in knots! With five status screens to keep your eye on, planets to land on and alien spaceships to dodge and destroy, you've got your work cut out.

The idea of the game is to put up such a good fight against the invading aliens that they take the hint and find some other universe to destroy. But there's oh so much more to it than that! This is not your average 'zap 'em up' game. The alien craft all have different characteristics, and judging a spaceship's speed as you home in for the kill is something you'll get the hang of only after much experience. And something else that'll take time is landing the Phoenix on a planet's surface, plus negotiating the hyperspace gates ... but it's all good fun and if you've got a spare couple of hours to practise, very rewarding.

The graphics are fast and extremely well-constructed. The screen format looks a bit confusing at first but, like the keyboard controls, all becomes familiar after a few games. Just don't panic if you don't stay alive too long on your first time out behind the wheel ... it'll all come together if you hang on in there.

Graphics / Playability / Value for Money / Addictiveness — **8**



THE FORBIDDEN PLANET

Design Design/£7.95

Alison Hurtling across the menacing terrain of the Forbidden Planet in a frenzied attempt to suss out the Evil Lord's final message from the snippets scattered around the planet, you're thwarted in your mission by the planet's relentless defence systems.

Tourists to the Forbidden Planet get their kicks from blasting their way through a multifarious selection of flash hi-res A.A. towers, dodging giddy guided missiles and through being knocked off course by the Planet's system of formidable force field networks.

A natty accelerate option will speed up your journey — use it 'cos time's in short supply and, with persistant pelting from enemy missiles, your energy dwindles fast.

But even the most seasoned adventurer is likely to come a cropper doing his business in a strange land.

So a handy map is provided to show you not only where the elusive bits of code are hidden or where you can top up your energy, but also to point out the whereabouts of the hazardous heavy defences.

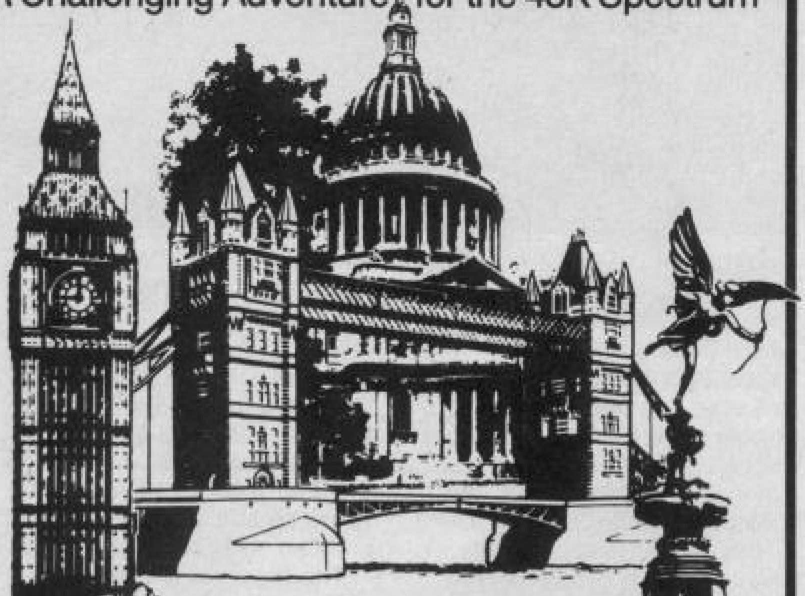
Forbidden Planet's a pace racing, addictive game — shame it crashed when I was just beginning to clock up a reasonable score!

Graphics / Playability / Value for Money / Addictiveness — **7**

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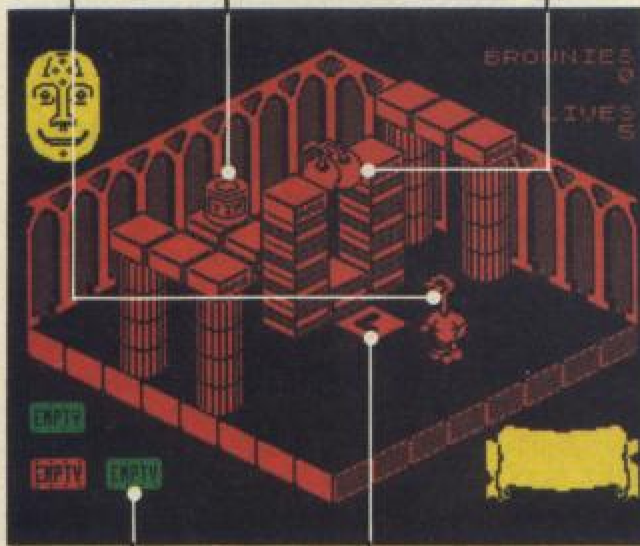
SWEEVO'S WORLD

HOT SHOT

Meet Sweevo, the world's least attractive android. Marooned here on Knutz Folly he has to overcome close encounters of the most absurd kind to reach Active Status.

Here's his first task — collect the can in case he needs it later. But as he can't leap up he has to get onto the catwalk some other way.

Problem one: the elevator doesn't stop for canned goods but goes straight to fresh fruit — and I promised not to mention that. Jump, Sweevo!



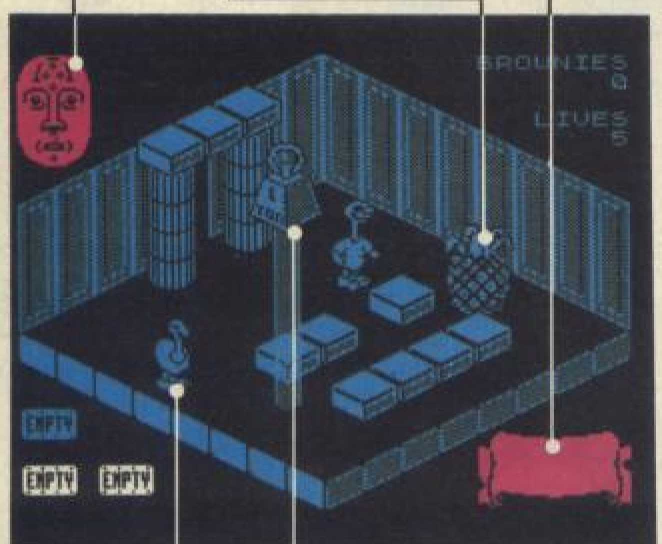
If he reaches the tin it'll appear here, in his inventory. The current space or object is indicated by a constantly rotating flash.

That L doesn't stand for learner but lift, because that's what this panel is. Only it might mean that Sweevo doesn't stand an android in 'ell's chance.

And this is how you tell your status. A big soppy grin indicates all's acey-deucey, but that's only four steps from the skull — and guess what that means!

Okay, I'll tell you about the fruit. Here's the revenge of the pineapples. Bump into it four times and you're officially Dead!

Any messages appear down here. They range from Sweevo's status to little words of encouragement — such as 'Cor'.



Ah, a goose. This means that there's a Boo to be obtained nearby, and you can use this to stun the foul fowl and make it lay an egg, if you sneak up on it.

What a dangerous place to leave a ton weight. Moving through the beam below causes it to fall, but if you dash you can just get through in time.

Gargoyle Games/£7.95

Rachael Sweevo is a robot. Sweevo is to robotics what Castle Rathbone is to peace, calm and order. Sweevo is a walking disaster. Sweevo makes me laugh.

I don't know quite how they've done it but Gargoyle, better known for celtic bovver boy Cuchulainn and outer space saviour Commander John Marsh, have suddenly demonstrated that not only do they know what to do with an Ultimate-style 3D adventure — they can also do it with great good humour.

Certainly Sweevo himself helps. He's the runt of an E.T. litter, possessed of the wide eyed innocence that made Stan Laurel so hilarious. Then there's the nature of his world, littered as it is with cans, teddy bears and ton weights on fragile supports. And its inhabitants number goose stepping dictators, not to be confused with geese themselves or horrible little girls. But even if fools rush in where angels fear to tread, Sweevo has to hold back because the floors sprout strange Noddy characters and fingers which are likely to kill the idiot android in a most undignified fashion. And that's not to mention the fruit!

The gameplay adds to the charm though. The puzzles aren't always too difficult, though some are fiendish, but solving them calls for delightful applications of lateral thinking. And if this wasn't all good enough there's the attention to detail, those little touches that make even losing your final life and getting not the message 'Dead' but 'Deader', bearable. The game is ludicrously playable — over four interconnected levels that should take an age to map — and highly enjoyable. It also boasts the silliest scoring system going, with percentages, Brownie points, and bonuses.

Get *Sweevo* — it proves that even a Gargoyle can smile!

Graphics
Playability
Value for Money
Addictiveness
9

MYLA DI 'KAICH

Global Software/£2.95

Rachael Excuse me, I think I'm having a migraine. No, it's just the graphics in this game, which are brighter than even Jeff Minter's most psychedelic nightdress. And what's worse, when you lose a life they flash through every colour combination imaginable.

Myla di 'Kaich turns out to be a space store gone mad, which doesn't help your search for the twelve spare parts that'll let your ship leave (though I'd settle for an aspirin). Each of



the fifty screens of this lunar labyrinth is jam-packed with travelators, lifts, shifting floors and floating nasties.... very much like my local supermarket, in fact. It really is one of the busiest, most open plan collecting games I've seen. Owing to the eccentric layout and odd graphics it can even be difficult to get from one side of a screen to another.

It's all more of the same only a bit different this time, if you see what I mean. At the price it may amuse diehard fans of the game-type — but wear your shades while playing!

Graphics
Playability
Value for Money
Addictiveness
4



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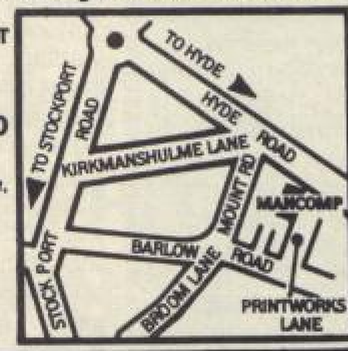
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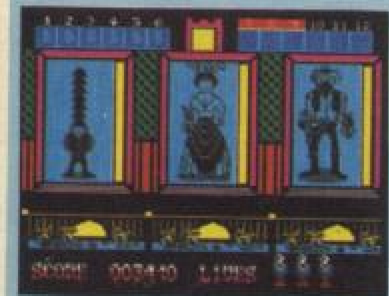
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WEST BANK



Gremlin Graphics/£7.95

Rick A kinda spaghetti computer game without the parmesan or the doi-oing sound each time you see Clint Eastwood's boot. *West Bank* has nothing to do with the middle east and everything to do with a hot-shot winner. It brings a bar room brawl into your front room without your getting a black-eye, or spilling red-eye on the carpet yet still letting you be the quickest dead-eye west of Wapping.

The screen shows three saloon doors, each assigned a key. Any could swing open at random. Press the appropriate key and you could blow away whatever's behind it. If it's a low down, no good sidewinder of a bad man then watch your bounty money tot up as indicated by the dollar bags above the doors. But if you're too quick you might shoot the Mae West proportioned bar maid, and that'll cost you, as well as her, a life. But before she can ask whether that's a gun in your pocket or are you just glad to see her another door swings open. This could be the clown with five hats. Shoot 'em off — but watch it — under the last could be money or a bomb. One's a winner — the other could cost a life.

The greater your first round success, the less baddies you'll meet in the second round, which is marginally faster than the first. If you're top drawer here, then shoot through the final showdown at the Pretty OK Computer Game Corral. Now, instead of doors, three heavy dudes confront you. You can't draw before them — and you don't know who'll draw first, so your reactions have to be razor sharp. then banga-bang-bang and mash all three — the faster you do it the higher your bounty bonus.

This one you'll all be gunning for — it combines larfs with thrills, quick reactions with brains.

Graphics
Playability
Value for Money
Addictiveness
8

MIKIE

Imagine/£7.95

Pete I love it, I love it not, I love it . . . well, we'll just skip the rest and come to the conclusion that I love it. Not only is *Mikie* a masterful conversion from the arcade original, it's also an extremely addictive game.

Our romantic hero, Mikie has fallen under the spell of the age-old ague, love. His girlfriend waits by the schoolyard gates, cheerleading away while he rushes round the school collecting letters to form a love-letter to send her.

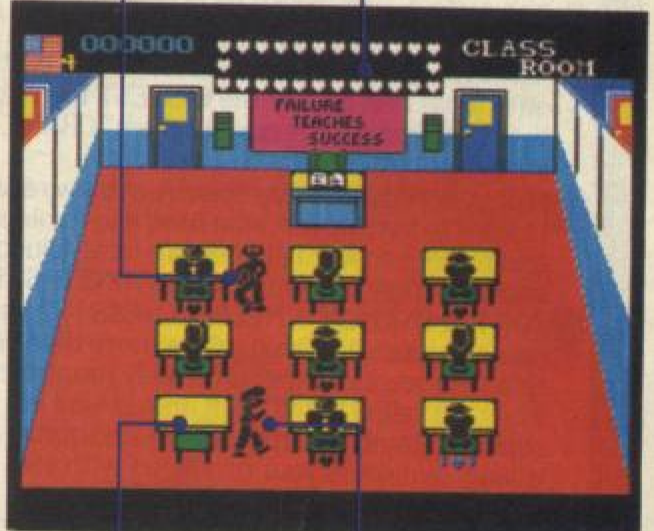
There are five sections to the game each set in a different room in the school. We start in the classroom where Mikie has to push his classmates off their chairs to collect the hearts on the back. Then whizz off to the locker room, the canteen, the gym, where they bring on the dancing girls, and finally to the schoolyard where Mikie's girl's waiting. In between there's the short dash between rooms but fortunately, you won't need to do any homework on that bit.

If you love the mad whirl of a good arcade game and aren't put off by the sloppy theme of this one, then *Mikie* should set your heart all a flutter.

Graphics
Playability
Value for Money
Addictiveness
9

Watch out for gum fire. If teacher gets angry at your antics, he'll throw his false teeth in your direction. Luckily, there's no tooth in the rumour that he's a good shot!

Your message is displayed here as you collect the hearts. Eventually, it'll read OPEN and that's just what'll happen to the door. Now run out.



When you find yourself in a tight spot, plonk your bum on this seat and teacher will ignore you — just make sure his dentures don't make a dent.

Meet Mikie. It's his task to bump off his classmates — but only off their seats, you understand, so that he can get to the heart of the matter underneath.

ANTTEROO/PRELUDE

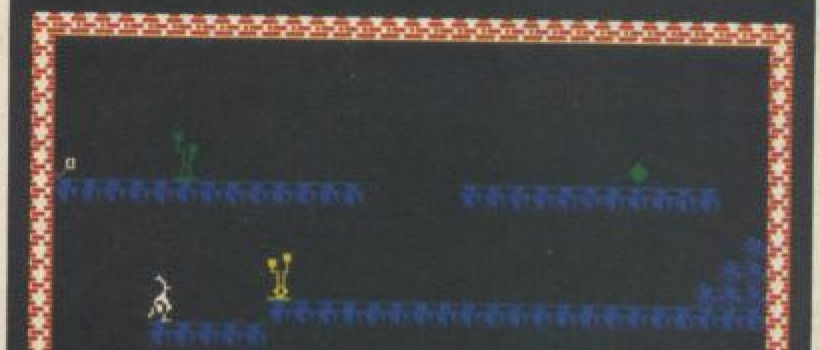
Central Solutions/£3.99

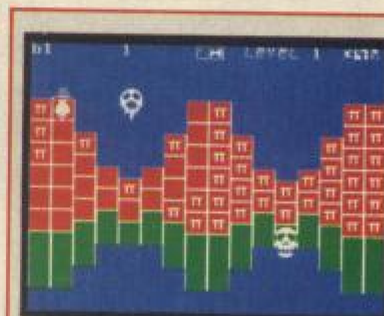
Gwyn Don't judge a book by its cover. Can the same saying be applied to computer games? If so this inlay's verdict's pure amateurism. And when you turn the box over to reveal more of the same... Double your displeasure?

Antteroo isn't actually that bad, but it's so-ooo unimaginative. Does your collection really need another platforms and ladders variant? If so here's a competent, moderately difficult addition to that teetering pile that threatens to crush you.

On the otherside, *Prelude* turns out to be a graphic adventure set in WW2, produced with The Quill and Illustrator so it lies outside my domain. Suffice to say, those who like this sort of thing may find it a reasonable bargain. They're unlikely to want *Antteroo* too though. Tough!

Graphics
Playability
Value for Money
Addictiveness
4





TEN PACKS VOLS 2 & 3

Automata/£8.00

Steve: The ten games on each of these tapes — ranging from arcade jollies to head-banging adventures — represent the sort of thing that arrives in the post of most software houses. Of course, as this is Automata, the games aim at the kind of non-violent amusement the company's famed for. Shame they lack the bizarre goofiness that made *Pimania* my favourite adventure.

Graphics
Playability
Value for Money
Addictiveness
5

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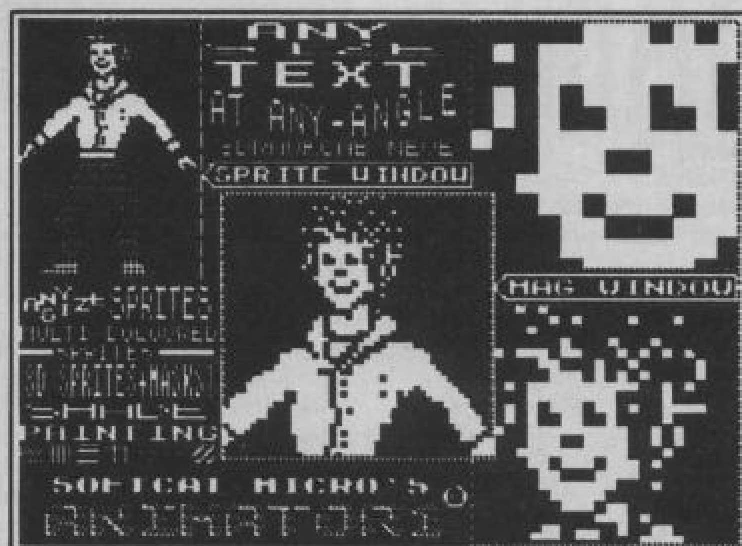
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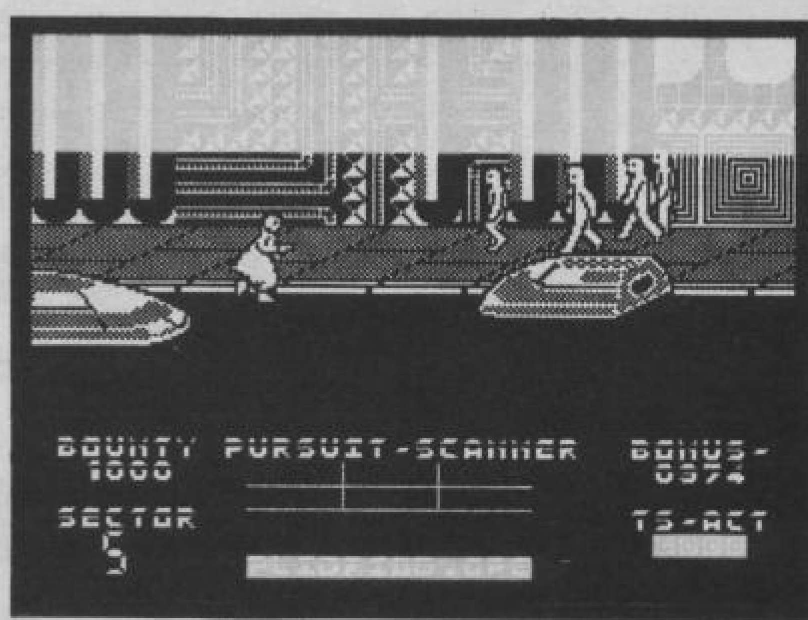
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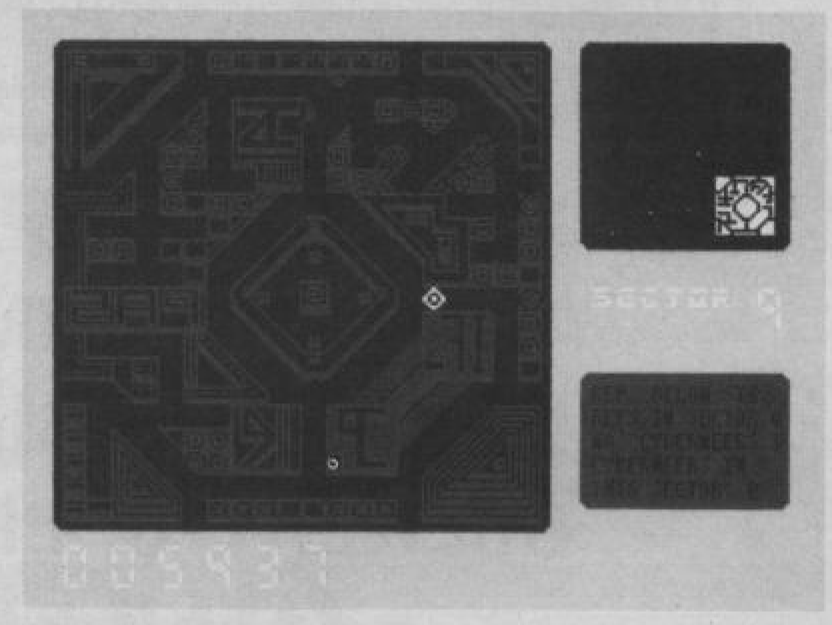
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BLADE RUNNER





CRL/£9.95

Alison A word of warning — if you're a replidroid and your company offers you early retirement, take care. It may not mean a cottage in the country and cream teas with the Darby and Joan. Nope, for replidroids retirement is just another word for a one way trip to the tip. One Ford (Harrison) will take you there and you'll more than likely end up in another (Cortina).

In CRL's *Bladerunner*, you're the one doling out the pension scheme to twenty-four renegade replidroids on the run on earth. The first screen presents you with an aerial view of the city. You must guide your skimmer car around the streets in pursuit of the robotic runaways, then hover over the area before landing.

The screen now changes to a side on view of the city street with a scanner along the bottom that indicates how far you are from your quarry. As soon as your skimmer's come to rest, start legging it after the replidroid so that you can explain the benefits of retirement to him — you'll find your gun a convincing persuader. But watch out, the streets are mean and you must take care not to blast away any passing pedestrians or get run over by skimmers. The more replidroids you take out, the more money you make for your own retirement.

Now I didn't expect the game to follow the film faithfully — it says on the inlay that it's a 'video game interpretation of the film score by Vangelis' — but a bit more variety in the gameplay wouldn't have gone amiss. Overall the idea for the game's fine but it feels unfinished. A touch more speed and a bit more polish would've improved it no end. As it is, I retired early from this one.

Graphics
Playability
Value for Money
Addictiveness
7

RAMBO



Ocean/£7.95

Alison If only life was like the movies — then no man, no law, no war would've stopped me! As it is, I had a terrible time just staying alive let alone securing the release of every Yank north of Saigon.

The game begins just after our muscle-bound megastar has been dropped into the jungle at the start of his mission — reconnaissance only, you understand, with orders not to engage the enemy. You are armed with an endless supply of grenades and knives but if you do encounter the enemy in the first section it's advisable to rely only on the latter. The noise of the grenades is sure to bring the massed ranks of the Red Army into the battle.

You'll find all the weapons you need randomly scattered around the first part of the game — and there are extra points for collecting them. The only other way to amass points is to kill everything that moves — and a few things that don't! Only when you've crossed the banks of the river into the enemy's camp does the action start to hot up. There you have to locate the hostage and release him before heading north again to free the rest of his compatriots.

Rambo is best described as a thinking man's *Commando.* That game starts fast and gets faster until you end up like a one-man whirlwind. *Rambo* develops into a solid shoot'em up but it just doesn't seem to be such a drain on the old adrenalin. Somehow it lacks the excitement of Elite's number one hit — perhaps it's the larger playing area, maybe it's the slower start or could it just be the amount of strategy involved? After all, who ever heard of Rambo having to think?

Graphics
Playability
Value for Money
Addictiveness
8

WILLIAM WOBBLER

Wizard Computer Games/£7.95

Rachael Would I like a Willy Wobbler, Ed asked. Tell me, do I look that sort of a girl? Then he handed me the cassette and all became obvious. William Wobbler is the oversized sprite hero of an arcade adventure that bears Tony Crowther's monicker on the cover, but cites two others inside — trying to escape the blame somebody?

Well no, to be fair, *William Wobbler*, a sort of scrotty looking E.T. type with an irritating habit of nodding his head up and down, ain't that bad. It's just that it looks like what it is — a conversion that hasn't translated too well.



For a start there are awful attribute problems and what may have been a rather nice landscape is less enticing than Burnley on a wet Saturday. It's also the very devil to pick things up, calling for ludicrously accurate positioning considering the size of your Willy. If you miss you bounce around because fire is also used for Jump. Reactions seemed slow, especially when ducking to avoid the low flying monkeys!

In its favour though it does look different to the average arcade adventure. There are a few nice touches, such as the necessity to find a disk and take it to a terminal before you can Save the game. And if you get bored, pressing Break transports you to a minimal shoot 'em up diversion. But while arc-ad addicts may persist in the quest, I just got p*ssed off.

Graphics
Playability
Value for Money
Addictiveness
6

DEATH WAKE

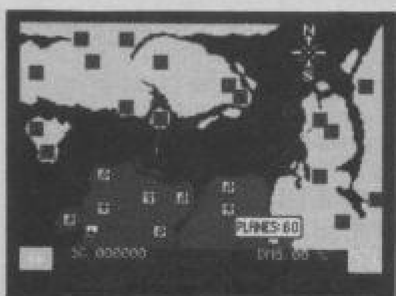
Quicksilva/£7.99

Luke The cassette inlay card sets the scene by telling you that 'the war is not going well': And guess who it's not going well for?

Death Wake is a pretty good wargame. It's based around the adventures of The Undaunted, a destroyer that can float just about long enough to avoid patrol boats and dodge the enemy planes. Its mission, to destroy the research plant, busy in the development of the atomic bomb.

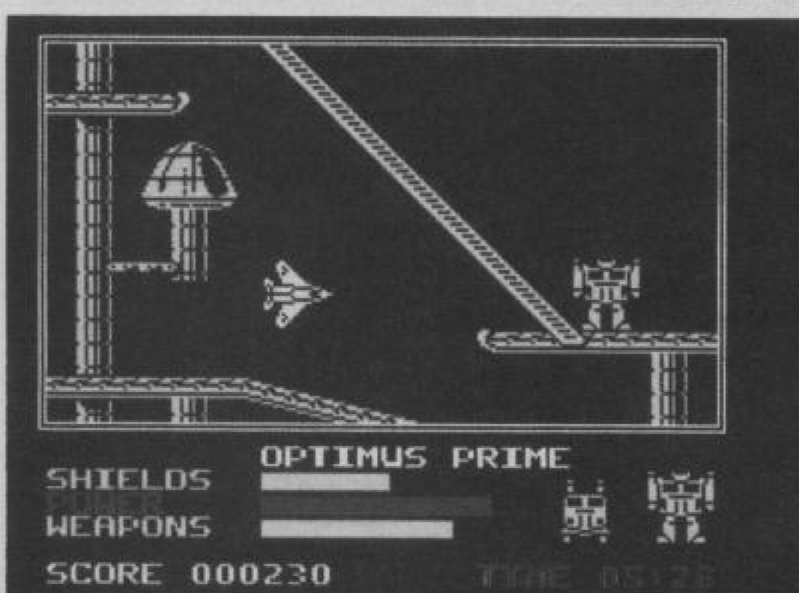
The screens don't look that spectacular at first sight — and nothing compared to the stunning portrait on the cassette cover — but they are certainly up to giving you a good idea of what's going on. In most wargames I've played, the instruction booklet accompanying the package is so daunting that play can be forstalled by half an hour while you keep looking up what you *need* to do to win. *Death Wake* is much more friendly as it mixes the traditional wargame format with arcade action, so that beginners can plough into the battle and sort out tactics.

As wargames go, it's not the best in the world... but, on the other hand, it does have enough addictive qualities to grow on you. And that's coming from someone who rarely recommends wargames. Check it out!



Graphics
Playability
Value for Money
Addictiveness
8

TRANSFORMERS



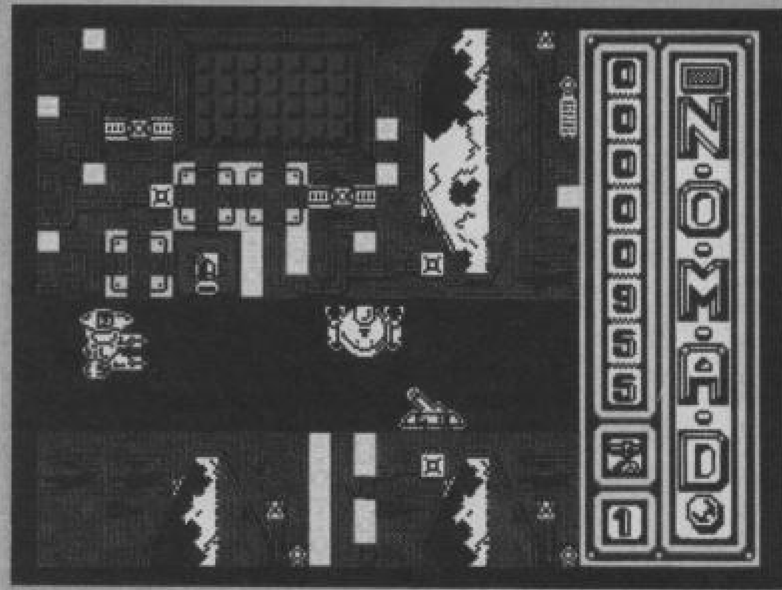
Ocean/£7.95

Max They get everywhere these Transformers don't they? You've played with the toys, watched the cartoon on the telly and eaten the cereal. Now, in case you're feeling deprived, here's the computer game. Yes, it's yet another chance to control the five amazing autobots that transform instantly into cars in their amazing struggle against the evil Decepticons.

In Ocean's version, your task is to collect the four pieces of the Energon Cube before the baddies nick them. You control all five 'bots though only one at once — stop off at a Defensa Pod to recuperate and you can then switch to any of the other four — hardly *Shadowfire*! All the Decepticons are there, too, in minute detail but, unlike the toys, they reproduce at a fantastic rate in order to make the game a shoot'em-up more than anything else. It would be a platform and ladders clone with shooting but the ability of Autobots to fly/drive when necessary makes the platforms a bit redundant.

The game is slick but nothing new, the keyboard controls are awful and the cassette inlay diabolical; not your usual dashing Autobot prose at all. Strongly recommended for all remaining Transformer freaks everywhere. Personally, I'll stick to the real thing ... I could do with a good play now and again...

Graphics
Playability
Value for Money
Addictiveness
6



N.O.M.A.D.

Ocean/£7.95

Luke Buy a joystick before attempting this game — the keyboard combinations must be the worst ever devised for a Spectrum! That said, *N.O.M.A.D.* must be one of the most addictive games ever written if you're an arcade enthusiast.

You control a robot through a future city — which looks a lot like a circuit board — in search of the HQ. Once at the HQ, of course, it's 'grievous bodily harm' time — but don't worry about that too much right now as it'll be ages before you get that far!

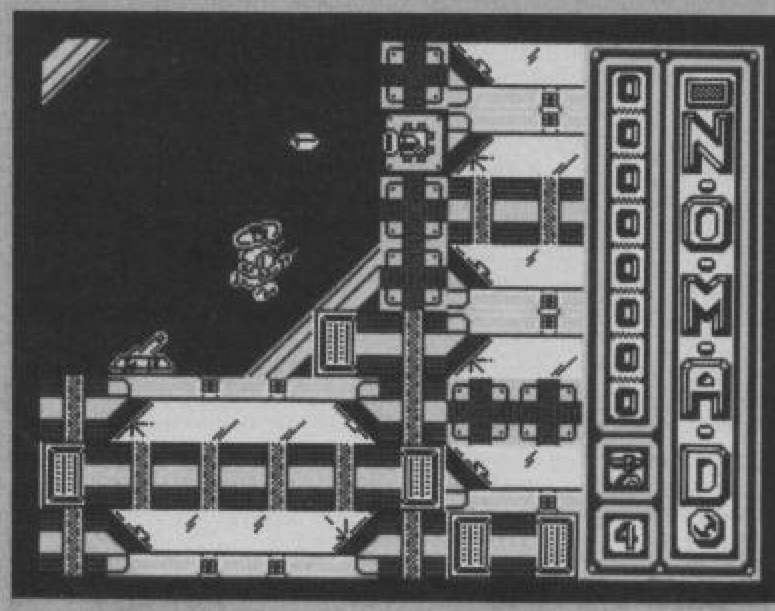
N.O.M.A.D. can be spun around in either direction, and can be thrust forwards and backwards. The robot lurches around the screen, but can be controlled carefully with experience. And, of course, there's the trusty laser gun — you never run out of ammunition so it's a good plan to spatter anything in sight.

There are all sorts of nasties as you progress through the corridors — from heavy guns to homing missiles to robot thugs. But there's tactics too — in knowing where the magnetic walls are, which rooms have zero inertia, and which switches control which doors. These last few problems can only be dealt with after you've lost one of your four lives finding out about them, but the game's addictive enough to keep you coming back for more.

Points are awarded for destroying anything that looks faintly like an enemy, but if you can pass a particular section of the game without violence then good luck to you. The only advantage to devastating the various screens is that if you lose a life you start from the beginning again — only the next time through, there's less to watch out for. Once you get past a specific section of the game and lose a life, you start from the beginning of that section — which is a darned good idea and saves a lot of frustration.

Overall ... absolutely fab!

Graphics
Playability
Value for Money
Addictiveness
9



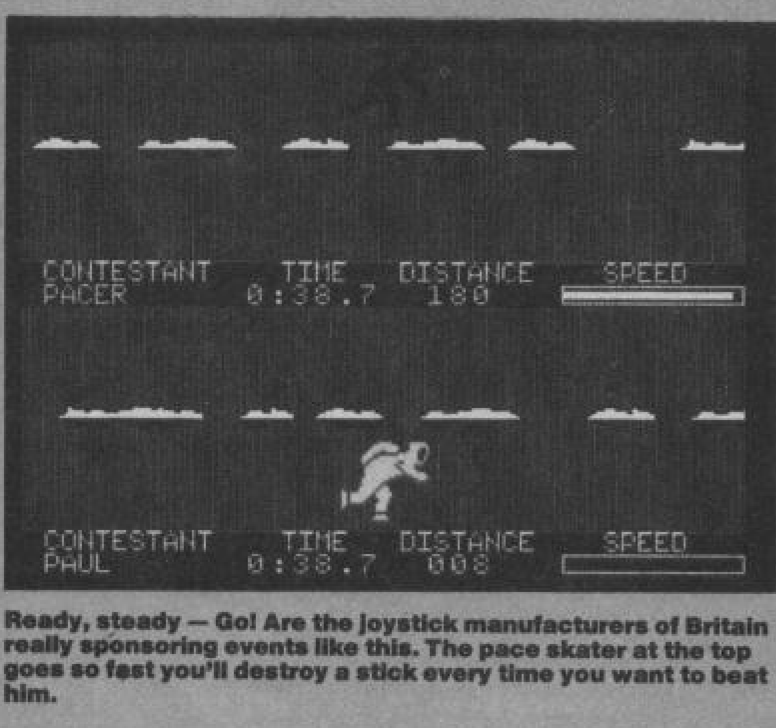
WINTER GAMES



Further down the slippery slope of sports simulation software but make sure you jump at the right moment if you want to reach the second screen where aerial balancing is all-important.



Want to know why the skier looks so happy? He's just done a Back Flip, Forward Flip, a Daffy Swan (shouldn't that be Daffy Duck?) and a Mule Kick — and he landed standing. Hot Dog!



Ready, steady — Go! Are the joystick manufacturers of Britain really sponsoring events like this. The pace skater at the top goes so fast you'll destroy a stick every time you want to beat him.

U.S. Gold/£7.95

Gwyn The most interesting battle in the Winter Olympics has been the race between Electric Dreams and US Gold to win the Spectrum owners' gold. Electric Dreams was first to the finish but this is not a mere race — there's scoring for style too!

Winter Games has only seven events while *Winter Sports* had eight. But of those three were almost identical and two of the new ones give me a feeling of dejà vu as well. Both need to be loaded in parts, but *Winter Games* keeps this down to two and on the whole it's fair to say they manage better graphics.

The first side contains some great music but the four program second section is silent — a pity because the instructions refer to Free Skating to music. There are options to practice and compete in single events as well as all together and multi-player options.

Both programs compete in the Ski Jump and Biathlon events. While Electric Dreams' versions are more sophisticated I preferred the latest two screen jump. The Biathlon is rather simplistic but at least it doesn't take an age.

There's also the obligatory joystick-wrecking Speed Skating about which what can I say except 'Ouch, I've sprained my wrist!' Bobsled appears in both *Games* and *Sports* and the American team provide much less of a challenge than the English, who make you steer a proper course instead of just compensating for centrifugal force.

The other three events are unique to *Winter Games*. Hot Dog Aerials isn't flying frankfurters but a ski jump with stunts — looks like a good way to break your neck in reality! It's closest to the diving events in more summery athletics.

Figure and Free Skating are very similar, with one and two minute time limits to perform certain specified moves without going over on the ice. Attempting a Double Lutz when skating forward will only prove that you're a total klutz! Though in the John Curry stakes these are more Mild Korma than Madras, I rather liked them.

In the end those all important style points go to *Winter Games*, mainly for the graphics and music, and if you must have yet another excuse for not going out and getting some real exercise, then this is probably the one.

Graphics
Playability
Value for Money
Addictiveness
8

Macmillan/£8.95

Rick 'Ere we go, 'ere we go, 'ere we go — get ready for Mexico '86 with Macmillan's *World Cup Soccer*, a multi-feature package which should satisfy, whether you're a Speccy or footy freak.

The tape is double sided (a game of two halves you might say) with a fact file and a game simulation — which should have you over the moon. The simulation starts with a warm up of heading and penalty skills that'll test your arcade abilities. Good graphics here. You then move on to management. Pick which country you wish to be, then select a squad or accept the programmed one. I can understand the computer might struggle to give you the Cameroons squad, but if you choose to be England you'll be given an all-time greats squad of multi-nationals. If only Pele really was English!

The computer will now pit you against another nation in your section. The first half is unseen — but injuries and scores with times are flashed up. In the second half you can compensate for any program failings by using the heading and penalty skills first seen at warm up.

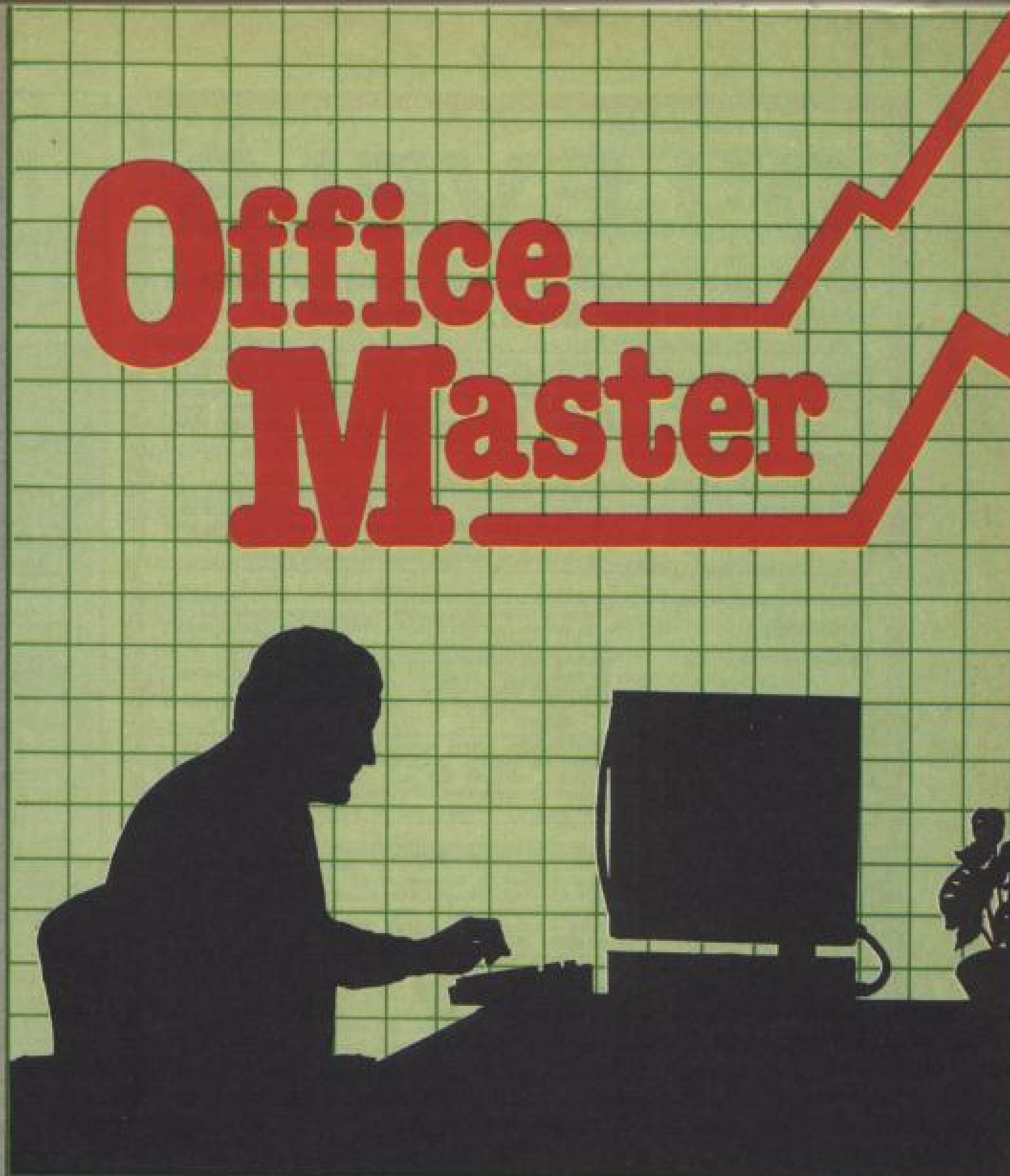
But what's this? Kuwait and New Zealand seem to do uncommonly well for soccer minnows and the Great Shilts has become goal scorer as well as goal keeper. Still, this ought to keep you happy until the real thing in June.



Graphics
Playability
Value for Money
Addictiveness
8

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This is a specially designed database for storing names and addresses, and printing out in label format. Special search routines are included for selecting only names and addresses that conform to your criteria. The famous Gemini 'Searchkey' facility is included with this program, and data entry is simplified by an on screen label painting system. Just type in those names and addresses as though you were using a typewriter!

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Cash Book

This is a full and comprehensive cash book accounts system designed to REPLACE your manual ledger entirely. It will take you from the 'shoebox' situation of sheaves of invoices, cheque book stubs, petty cash vouchers and bank statements etc. to a properly constituted trial balance. You may then take your FINAL - ACCOUNTS package and produce profit and loss account and balance sheet ready for audit. A REAL money saver when it comes to your accountancy bill!

Final Accounts

Using the data file on microdrive or cassette prepared by the cash book program, this software will produce comprehensive end-of-year reports ready for audit by your professional adviser. The Gemini cash book and final accounts system is now in use by many thousands of businesses and as a 'classic' professional program has been translated for a wide variety of micros. Cash - book and final accounts alone warrant the purchase of this OFFICE MASTER program pack.

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Designed as a complete financial and budgeting package for home affairs, this program allows the user to set up a budget for items of household and family expenditure and compare actual expenditure with budget as often as required. A running total of surpluses and deficits is available both numerically and in bar graph form. A complete bank account routine is included, together with suggested expenditure categories which may be simply altered as required.

Easiledger

Consists of invaluable routines to allow the creation of any type of financial ledger system. Its usefulness lies in its ability to produce account balances instantly for debtors and creditors together with an audit trail of all entered transactions, with dates and references. A year-to-date summary is included of sales, purchases, receipts and payments over a 12 month period, and most importantly, a completely interactive bank account database is featured.

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At last, superb grapns, bar charts and pie charts on your Spectrum! With a complete data entry section and the ability to load and save files, this is really one of the fun programs to use. Represent numbers and data in clear diagrams with this package, and print them out on your printer to accompany reports, budgets, etc. Very highly recommended for the office, home and school. Also includes capability to provide mathematical function plotting.

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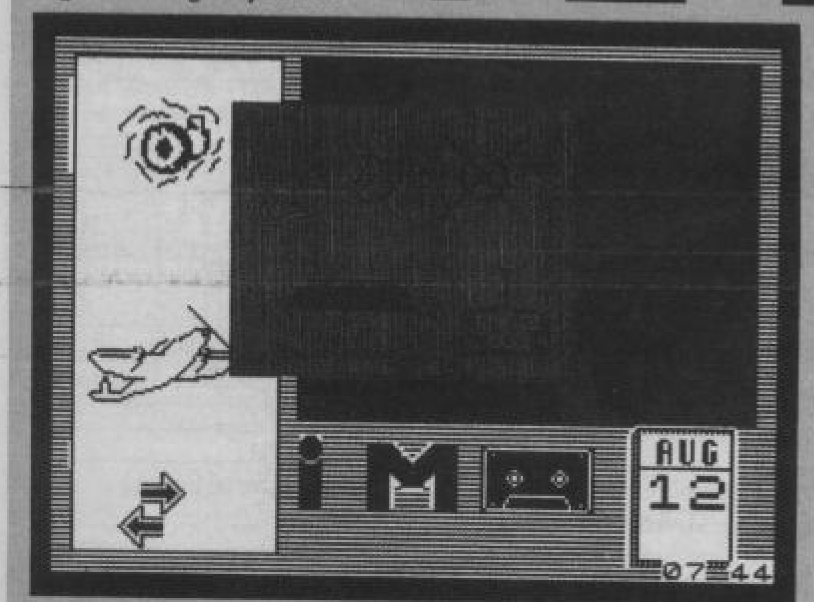
Max Nehvah, in the field of Spectrum wargaming, has so much been put into so little. Century surprised everyone with the flash icons and ease of play of its *Fourth Protocol* and it's used many of the same techniques to make its Battle of Britain simulation one of the most playable and realistic wargames ever. Unlike the bulk of the genre, *Their Finest Hour* plays smoothly and is all action. There's little of the tedious taking turns to alter this, allocate that, update the other and whatever.

You play in 'real time', the action only stopping so that you can read reports and the constant stream of mostly abusive memos from the Commander-in-Chief or respond to questions such as the way you want to handle particular dogfights. The speed of play is adjustable by setting a pulse rate — set it slow and you get more time to consider your options than they did in 1940, set it fast and it all happens so quickly, it's almost an arcade game. Even better, holding down the S key hurries the game along so you can rush through the 'boring' bits and take more care over the crucial battles.

The game's high on realism — the lads even get tired and careless if you leave 'em up too long. You've got to spread the load throughout your forces and make sure those in the front line are getting their fair share of rest, repairs and support from other squadrons. But the simulation is scaled down from history — you've only got Spits and Hurricanes. As it is, you're gonna have to play loads of one-day games until you've got the map fixed in your head and don't have to think about which dot is where before you can attempt the real thing.

It may not have 3D graphics, the rattle of machine guns and thunder of ack-ack guns. But it does have the claustrophobia and almost impossible odds of 1940. I lost again and again; I still can't beat off the might of the Luftwaffe. And I still don't know how they did it in 1940.

Graphics
Playability
Value for Money
Addictiveness
9



Lothlorien/£9.99

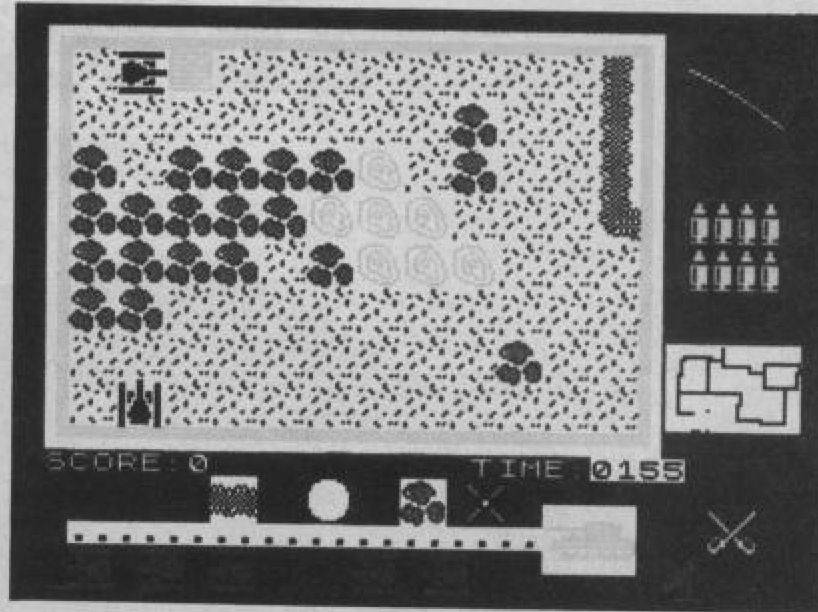
Steve Most strategy wargames feel as though they're written by and for those armchair generals who can reel off the names and addresses of the entire French army at Waterloo. Many a lesser mortal, having spent three weeks reading the rules, only to see his defences salamied by the computer, has wailed, "If only I could *do* something!" Well, Lothlorien claims to have the answer — *Arena*.

Take one standard platoon commander type game. But instead of the usual statistical analysis that tells you whether you've turned the enemy tanks into so much scorched scrap, you throw in *Battlezone* instead. Now you do the fighting so you can wave goodbye to the traditional excuse that you had a lousy luck with the dice.

Great idea, but what about the game? For starters, the strategy map suffers from the same nursery school tanks and landscape that marred *Battle Of The Bulge*. What's more, the programmers have fallen foul of the latest fad of icon driven commands. Okay, but the idea of icons is to make the game easier to play, not to fill screen space. And some of the icons will have you frantically leafing through the manual to find which ink blot does what.

Still, when you've got it sussed, this game's great fun. But it just goes to show that smart-alec strategy still can't beat a well-oiled joystick!

Graphics
Playability
Value for Money
Addictiveness
6



ARENA

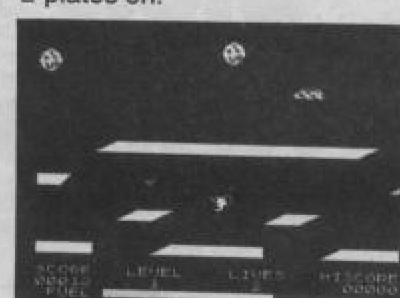
Mastertronic/£1.99

Rick Big Brother — presumably of 1984 fame — has been overthrown but crucial nuclear plasma has been stored away on four other planets. Your mission in your frail craft is to seek out the plasma and return it to save the world.

Sounds familiar — even if not too much like Orwell? Well this is a version of the arcade *Gravitar*. In fact it starts off like *Lunar Lander* in reverse — the first skill to learn is how to take off. You have thrust power but your left and right controls make the craft rotate — and extremely hard to manage. Suss this central control and half the fascination of the game is gone.

Once going you have six screens of caverns and landscapes to negotiate — the take off screen, four plasma pick up planets and the tricky fusion core finale. Lots of phews! and cors! here. You might groan at the jokes, folks, but at £1.99 everyone can afford a smile even if the whole program is massed on the action. The music for instance slows down whenever a gratuitous spaceship flies past, and the screens character, not pixel, scroll. One to get your cosmic L-plates on.

Graphics
Playability
Value for Money
Addictiveness
7



1985 THE DAY AFTER

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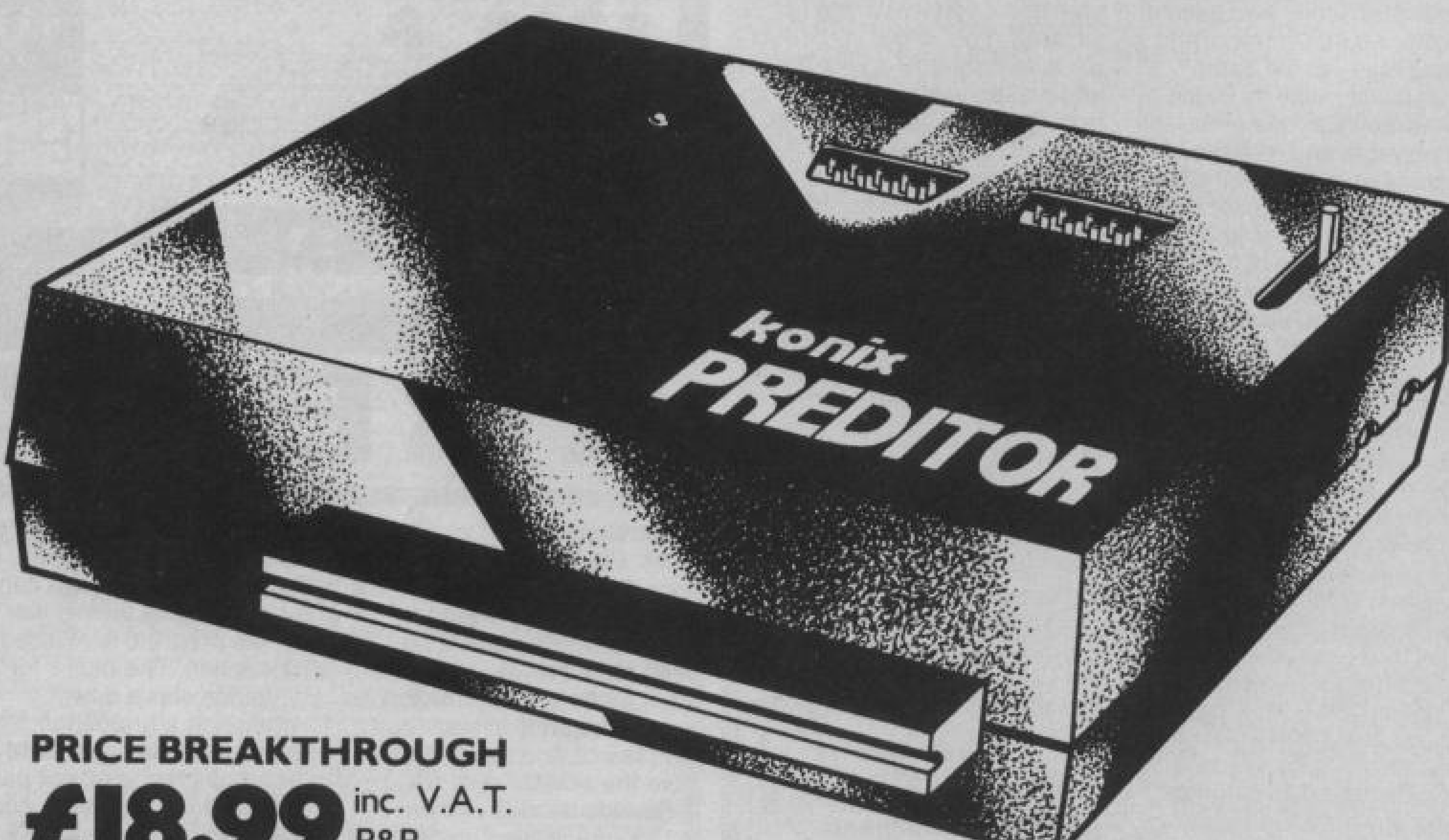
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THE HIT LIST

What's in and what's out? Find out from the *Hit List*. Plus all the latest chart chat'n'stats from *Steve Colwill*.

Chart Chat 3

For the Christmas chart it's 'all change' from last month's faves. Only *Daley Thompson's Super Test* and *Monty On The Run* have survived the assault from *Commando* and Co. Even Monty Mole dipped out for a short time between last month's chart and this.

We say farewell to three long-running, bone-crunching classics *Way Of The Exploding Fist*, *Fighting Warrior* and *Frank Bruno's Boxing* only to see them replaced in the **Hit List** by *Yie Ar Kung Fu* and *International Karate*. These software houses know a good market when it comes up and hits 'em! Apart from these two martial arts entries, the chart has a military air about it this month. Elite's *Commando* takes the battle honours from the chopper flight simulator, *Tomahawk* and the burnt cork and rubber soles game, *Saboteur*.

The software business seems to be getting more like the music biz every day. The Christmas album charts seem positively stuffed with singles compilation albums. You know the sort of thing — *Now That's What I Call A Fast Buck 3*. *They Sold A Million* is a selection of raves from the grave, repackaged for those Speccy owners who missed out on the titles first time round.

This Month's Top Ten Titles

Position	Last month	Weeks in Chart	• Title/Publisher
1	—	2	• **Commando**/Elite
2	—	1	• **Yie Ar Kung Fu**/Imagine
3	—	4	• **Back To Skool**/Microsphere
4	—	2	• **Tomahawk**/Digital Integration
5	—	4	• **Elite**/Firebird
6	3	12	• **Daley Thompson's Super Test**/Ocean
7	—	2	• **They Sold A Million**/Hit Squad
8	—	3	• **International Karate**/System 3
9	1	5	• **Monty On The Run**/Gremlin Graphics
10	—	4	• **Saboteur**/Durell

12 Months Ago

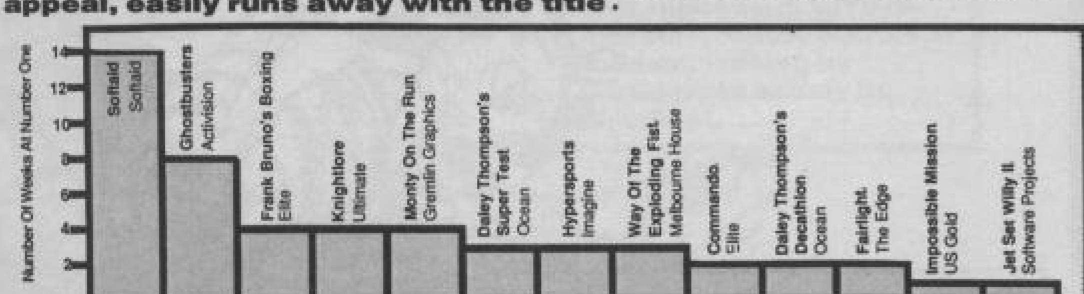
Position	• Title/Publisher
1	• **Knightlore/** Ultimate
2	• **Underwurlde/** Ultimate
3	• **Daley Thompson's Decathlon/** Ocean
4	• **Tir Na Nog/** Gargoyle
5	• **Doomdark's Revenge/** Beyond
6	• **Backpackers Guide/** Fantasy
7	• **Cyclone/** Vortex
8	• **Pyjamarama/** Mikro-Gen
9	• **Skool Daze/** Microsphere
10	• **Eureka/** Domark

18 Months Ago

Position	• Title/Publisher
1	• **Sabre Wulf/** Ultimate
2	• **Psytron/** Beyond
3	• **Codename Mat/** Micromega
4	• **Mugsy/** Melbourne House
5	• **Trashman/** New Generation
6	• **Fighter Pilot/** Digital Integration
7	• **Jet Set Willy/** Software Projects
8	• **Night Gunner/** Digital Integration
9	• **Atic Atac/** Ultimate
10	• **Blade Alley/** PSS

1985's Number Ones

As an end-of-year round-up, we've been back through the *MicroScope* charts for 1985 and compiled our own list of number one games for the Speccy. They're arranged in order of the number of weeks they spent at the coveted pole position. The *Softaid* compilation, put together to raise money for the Ethiopian famine appeal, easily runs away with the title.



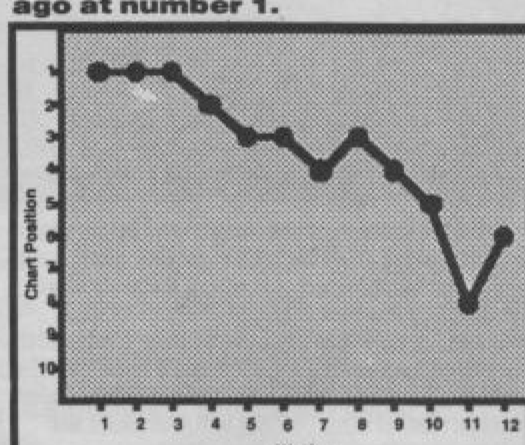
This chart is based on the *MicroScope* chart as compiled by Gallup.

MicroScope GALLUP

MicroScope is the weekly trade paper of the microcomputer industry. If your computer store doesn't display the latest *MicroScope* chart, ask the manager to call Mark Salmon on 01-631 1433 — we'll send a copy every week.

The Weekly Daley

***Daley Thompson's Super Test* is one of the few consistent best-sellers left in a much changed chart. You can follow Daley's track record below since he entered the chart twelve weeks ago at number 1.**



BATTLE OF THE ZOI

When first unleashed upon the universe, Zoids were the fiercest war machines ever known to civilisation. Carrying the Zoidaryans into battle from their desolate planet, Zoidstar, they conquered all known worlds ... until, with imperial domination secured, Zoid turned upon Zoid.

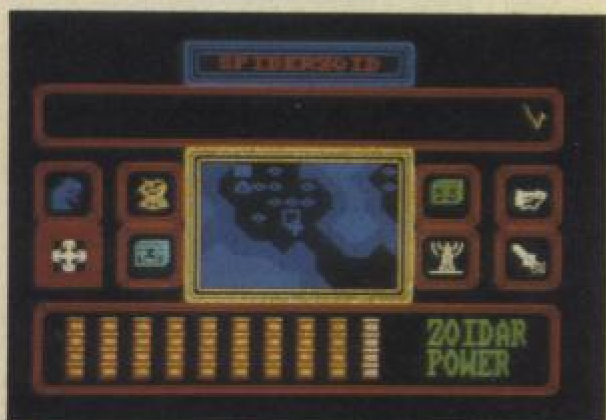
Only when threatened by a new, more formidable fighting force from the Blue Moon — the Red Zoids, led by the audacious Redhorn the Terrible — did the Blue Zoids on Zoidstar unite under their new leader, Zoidzilla.

Into this turmoil came Earthman with a plan to merge minds with Zoidzilla, infiltrate the Red Zoid city complex and destroy the indefatigable Redhorn once and for all. But an enemy spacecraft destroyed his spacecraft, shattering Zoidzilla into six pieces, which the Red Zoids buried under different cities. The fate of the Blue Zoids seemed sealed, unless Zoidzilla could be rebuilt and the wretched Redhorn destroyed ...

***Alison Hjul* boosts her brain power by merging minds with the ultimate fighting machine. Dare to go where no humanoid has been before with our paranormal review of Martech's *Zoids*. It'll blow your mind!**

YOUR SINCLAIR MEGAGAME

ON THE MOVE

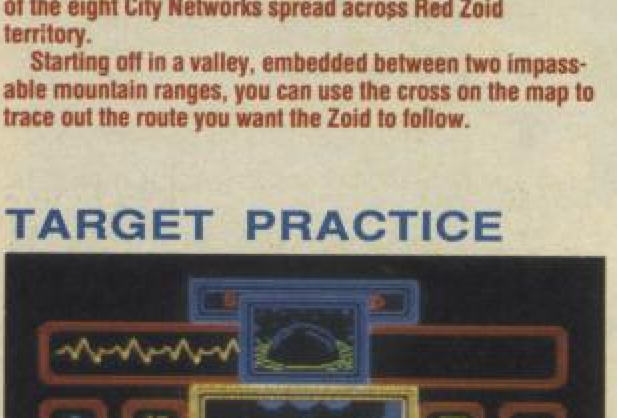


Earthman has survived and has merged minds with a small Spiderzoid. Thus, he not only controls the Zoid — he is the Zoid. Stranded in the heart of Red Zoid territory, you, as the Zoid, must set forth on your mission to recover the six pieces of Zoidzilla, merge minds with this mega machine and annihilate Redhorn The Terrible once and for all.

Your task is a tough one. The pieces could lie within any of the eight City Networks spread across Red Zoid territory.

Starting off in a valley, embedded between two impassable mountain ranges, you can use the cross on the map to trace out the route you want the Zoid to follow.

TARGET PRACTICE



By moving the cross over your target, you've opted to destroy one of the city network's eight City Domes, the powerful defensive force fields where androids slave away, building new Red Zoids.

Each city network also contains a Power Plant which provides Red Zoid nosh, Zoidar Power; a Mine, to provide the essentials to build Red Zoids; and a Beacon to alert arch Zoids, Redhorn the Terrible and Mammoth the Destroyer, of impending Blue Zoid attack.



Slitherzoid
This oily sycophant taxis between Mines, Power Plants and City Domes, delivering raw materials and Zoidar power pods.

Hellrunner
Long-legged and swift of foot, this Red Zoid messenger has no means of attack so it'll wander around important locations, hurtling off to get help when the enemy strikes.

Redhorn The Terrible
The biggest baddy of 'em all — the Red Zoid Imperial Leader and the Blue Zoids' ultimate target.

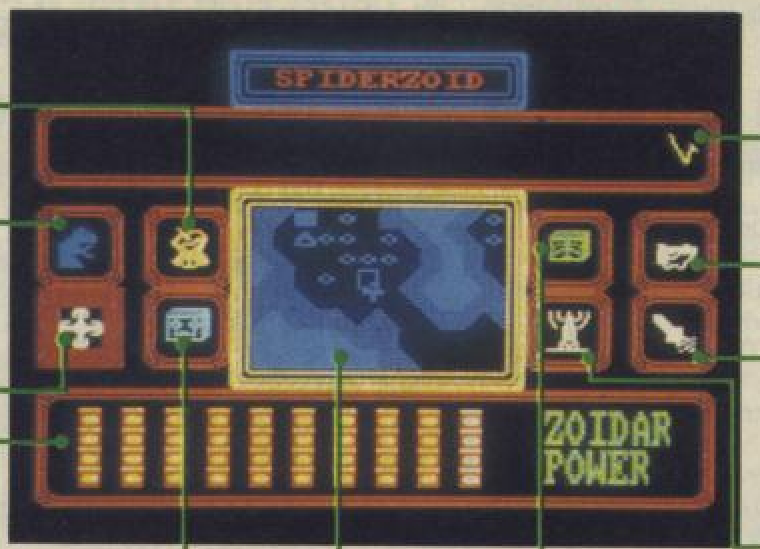
Fax Box

Game	**Zoids**
Publisher	**Martech**
Price	**£7.95**

DS

Mammoth The Destroyer
Roaming between the city networks, this Blue Zoid defector has ultra-sonic ears to detect signals transmitted from the Beacons.

ZOID'S EYE VIEW



The first inter-galactic satellite TV dish? Nope — it's a scanner, a vital bit of gear since it'll scan the immediate area for crucial objects such as bits of Zoidzilla — whose reconstruction is, after all, the main reason for all this traipsing about in strange parts.

This is your Zoid's ID. It's used to identify enemy Red Zoids. When selected you simply need to move the cursor provided over the Zoid you wish to identify and all will be revealed. Now there's a comforting thought!

Every which way but lost — this direction finder will let you plot your course ... or plod your course since, judging by the rate at which the cursor moves, Zoid's hardly hungry for a piece of the action.

Gen up here on useful info such as how much ammo or Zoidar power you've got left at your disposal.

If you feel the urge to examine your surroundings more closely, use this icon to zoom in on nearby objects.

Here's your map with your position always shown at the centre. At least you won't get way-laid admiring the scenery — it's dull, dull, dull, except for the whizzo 3D views when you get into combat.

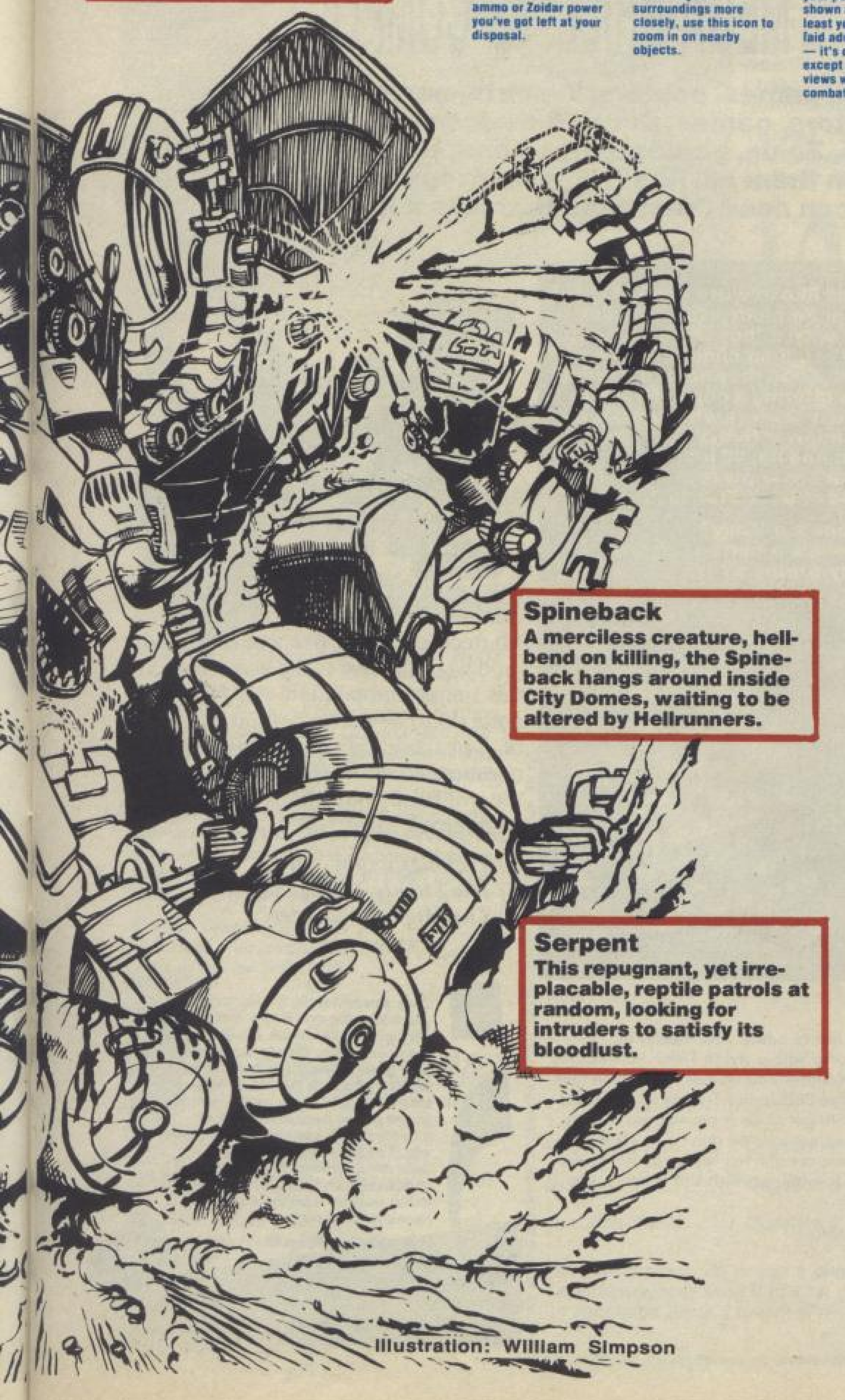
Every self-respecting earthman needs a status symbol. Use this one to check up on your ammo, damage and progress — the number of Zoidzilla pieces collected.

Thinks are looking up — or down, depending on the Zoid's state of mind. This squiggly line represents Zoidthought — Earthman's and his Zoid's minds merged as one. In periods of calm, it'll ease along but, when the tension mounts — see it move!

Believe it or not, this amorphous looking blob represents your guns which are used to shoot down enemy missiles when you're under attack.

Hit seeking missiles! At last a chance to show your metal as you use these weapons to zap enemy Zoids and other targets such as Power Plants, Mines, Beacons and City Domes.

Earthman call home! If you're yearning to hear a friendly voice, use your radio to contact home base. You can either ask your mates to launch a long range missile against a selected target or to send a spacecraft to pick up Zoidzilla pieces.



Spineback
A merciless creature, hell-bend on killing, the Spineback hangs around inside City Domes, waiting to be altered by Hellrunners.

Serpent
This repugnant, yet irreplacable, reptile patrols at random, looking for intruders to satisfy its bloodlust.

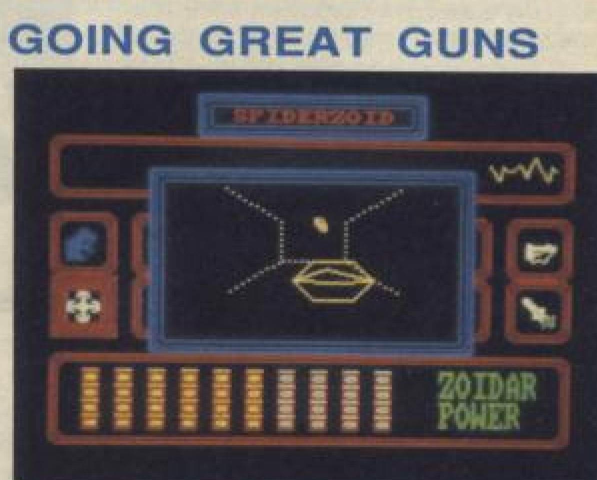
Illustration: William Simpson

IN FOR THE KILL



Guide your short range missiles, equipped with natty cameras, through the hills to your selected target — indicated by the red square on the horizon. But watch your step! The menacing mountains must be the enemy's most powerful weapon — you'll need to be a whizz at obstacle courses to avoid rushing headlong into them and thus disappearing in a puff of smoke ...

GOING GREAT GUNS



When warned of a possible attack, don't just stick to your guns — pick them up and use them to shoot down approaching Red Zoid missiles, using this 3D grid to help you shoot straight. But be sure to zap the lot 'cos any missiles you fail to hit will backfire.

Graphics
Playability
Value for Money
Addictiveness

9

YS COMPO

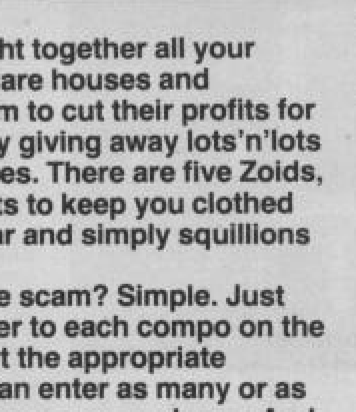
THE ENORMOUS, HUGE, WONDERFUL, ACE, TRIFFIC, SUPERSONIC, FAB, OVER-THE-TOP, INCREDIBLE, FAR-OUT, MIND-BLOWING, ABSOLUTELY GINORMOUS, MEGA-BRILL YS COMPO!

Games, games, posters, T-shirts, games, Konix Liberators, games, South American nose flutes, games, Zoids, games, games and, er, games. And you can win them all. (Well, all except for the South American nose flutes 'cos that was a fib.)

We've brought together all your favourite software houses and persuaded them to cut their profits for another year by giving away lots'n'lots of lovely goodies. There are five Zoids, enough T-shirts to keep you clothed for a whole year and simply squillions of games.

So what's the scam? Simple. Just write the answer to each compo on the coupon against the appropriate number. You can enter as many or as few of the compos as you please. And even if you win one prize that's not the end of it. Back goes your entry ready for another go. Now that's what I call ge-ne-rous! Now cut out the coupon (or use a photocopy), stick it to the back of a postcard or sealed envelope and send it to the Ocean/Martech/CRL/Quicksil . . . er, on second thoughts, just send it to 'That ginormously big compo in issue 3', *Your Sinclair*, 14 Rathbone Place, London W1P 1DE.

1



Gargoyle Games' great new game's gonna have you going ga-ga. *Sweevo's World* is all about a tin-pot robot who's more than a little accident prone. Rather like the comedian who was the inspiration for his antics. What Gargoyle wants to know is who you reckon that funny man is. (If you need a clue, take a look at the drawing in Gargoyle's ad for the game.) So, is it:

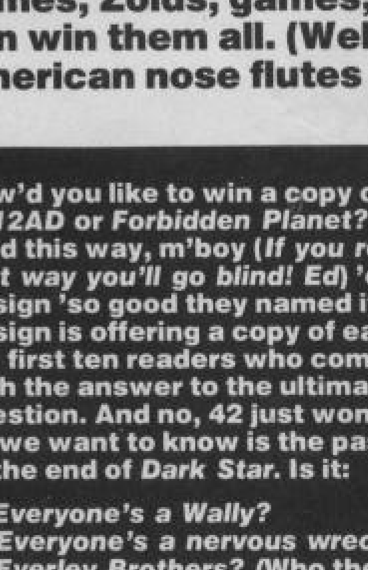
a) Oliver Hardy
b) Stan Laurel
c) Stan Andeliver

Oh, and the prize? Twenty copies of said madcap mayhem — that's the game to you! Sweeeeeeeevo!

2

How'd you like to win a copy of *2112AD* or *Forbidden Planet*? Well read this way, m'boy (*If you read that way you'll go blind! Ed*) 'cos Design 'so good they named it twice' Design is offering a copy of each to the first ten readers who come up with the answer to the ultimate question. And no, 42 just won't do. All we want to know is the password at the end of *Dark Star*. Is it:

a) Everyone's a Wally?
b) Everyone's a nervous wreck?
c) Everley Brothers? (Who they? Ed)



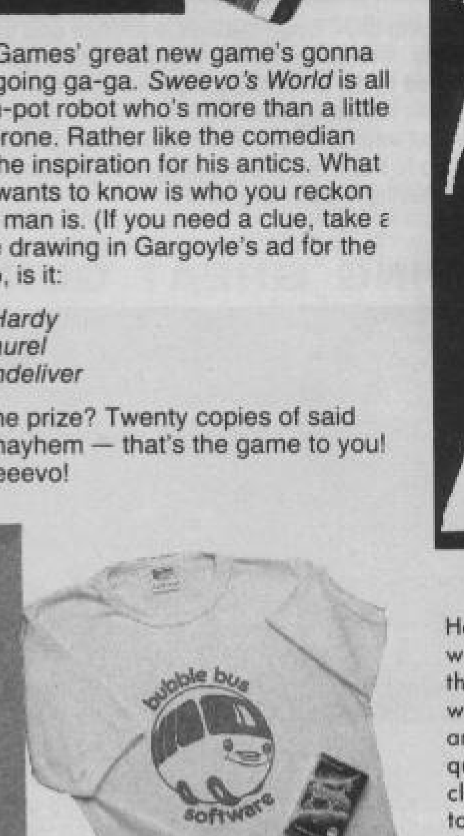
3



Zounds, itza Zoid! Yes, mighty Martech's offering five amazing Zoid models to the five lucky winners of this simple competition. All you've gotta do to be the envy (and enemy) of your friends is answer this simple question. Redhorn The Terrible is the evil baddy but who is his goodly counterpart? Is it:

1) Troubleshootin' Pete?
2) The Mighty Zoidzilla?
3) The Mighty Wurlitzer?

4



How d'you like to adorn your manly, or womanly, torso with a stylish T-shirt to welcome the spring months? You would? Lucky then that we've got five Bubble Bus T-shirts up for grabs and all you've got to do is answer one measly question. And even if you don't cart off the clothing, there are still ten copies of *Starquake* to be won. Just tell us which star is nearest to the Earth? Is it:

1) Alpha Centauri?
2) The Sun?
3) The Mirror?

5

Okay shweethearts, it's Humph here — you know, the one Bogey that doesn't get right up your nose. Ocean's asked me to give away twenty copies of its new game Movie that's based on the exploits of a dick like me. Private dick, smartassh! But if you wanna win one you're gonna have to do a bit of detective work yourself. Jusht tell me which of these black and white Saturday afternoon BBC2 films I appeared in and then jot it down next to the number 5 on the coupon. Here's looking at you kid!

1) The Maltese Penguin
2) The African Queen
3) Blanketyblanca

6

Did you have visitors over Chrimble? Well, Ocean did and it wasn't just Auntie Vera and Uncle Frank turning up to polish off the best brandy and natter on through the big film. Oh no, Ocean was visited by aliens from the outer cosmos, horrid slimy green things that ate Harry the Hamster for breakfast and drank Domestos cocktails. In fact, so entertaining was the company that Ocean's put the visitors into its new game V based on the TV series of the same name. To win one of the twenty copies of the game that Ocean's putting up for grabs just tell us whether these aliens are really:

1) Distant relations of the Ed?
2) Lizard type creatures?
3) Armadillos wearing rain hats?

7



Well, it was a long time coming but for Dungeons and Dragons freaks it was worth the wait — PSS's *Swords And Sorcery* has arrived. And to prove that it's not so much a game, more a way of strife, PSS is offering ten *S&S* T-shirts and twenty *S&S* posters to *YS* readers. So, now for the question. A long time ago there was this geezer called Arthur who had a modest country dwelling called Camelot. And he had a magical sword called . . . well, what was it called?

1) Wilkinson?
2) Excalibur?
3) Damocles?

8



Hello sailors. Oh, a life on the ocean waves. Take an exotic cruise, travel to distant shores and blow the hell out of other battleships. Perhaps we forgot to mention that we're talking about Quicksilva's new game *Death Wake*. It's a war game in which you play the commander of The Undaunted in his mission to blow up lots of things, preferably those belonging to the enemy unless you liberate them by answering this simple question. Sailors who pop their socks at sea can't be said to push up the daisies, so where do they end up? Is it in:

1) Davy Jones's Locker?
2) Mother Hubbard's Cupboard?
3) Dolly Parton's Chest?

9

Brrrrr. Cold? You don't know what cold is. It's like a zoo in here, there are so many brass monkeys. Lucky I've got ten *Bladerunner* T-shirts from CRL to keep me warm. Course the Ed wants me to give 'em away to you lot but what the heck, my need is greater than yours. (*No, it ruddy well is not. Hand 'em over! Ed*). Oh, alright but only on one condition. You must send me all your spare winter clothing. No? Oh well answer this question instead. Who was the star of the film *Bladerunner*? Was it:

1) Sting?
2) Model T Ford?
3) Harrison Ford?

10

How's this sound for a spec? An interface that adds a full ten functions to your Speccy — Centronics port, RS232 port, sound through the telly, slow mode, video port, all joystick protocols, reset button, through port, Save/Load and a power indicator. Okay, now name the price? £150? £100? Nope, to you John, £34.95. Sounds incredible, doesn't it? (*Sounds like you took the info straight from the ad! Ed*). Might've done, might've done. But although we haven't seen Konix's miracle Liberator yet, we still reckon it's worth answering the following doddle of a question? Who's the leader of the Liberal party? (Liberator/Liberal, geddit?) Is it?

1) Terry Wogan?
2) David Steel?
3) Stainless Steel?

11

Puff, puff, pant, pant. No, it's not a dirty compo entry up to a spot of heavy breathing but Silversoft arriving in the nick of time — mind you, have you played its spoof adventure, *Robin Of Sherlock*? Nope, well it's giving away fifteen copies plus twenty-five posters. All you have to do . . . well, you know what you've got to do by now. What was the name of the fat guy in the cassock who knocked around with Robin Hood? Was it:

1) Friar Tuck?
2) Cyril Smith?
3) Dolly Parton (again)?

12



And finally, *Fairlight*. Imagine what the inlay card might look like to an ant. Now think how big a full-size, full colour poster of the same piccy would look. Meg-aah! To win one of ten copies of such a poster, tell us the name of the game's hero?

1) Istvan?
2) Igor?
3) Another name beginning with I?

RULE UP, RULE UP!

Usual set of boring old rules. The Ed won't talk to anyone about the compo though what's so bad about the Ed not talking to you is way beyond us. You can't enter if you work for any of the participating companies or if you work here and if you work here knock three times on the pipes and we can form an escape committee. All entries must be in by March 31st — a day late and you'll feel a right fool.

NOW THAT'S WHAT I CALL A MEGACOMPO!

Here are my answers to your easy-peasy questions. Next time you'll have to make them harder if you want to beat me.

Name ....

Address ....

....

.... *Postcode* ....

Question 1	*Question 4*	*Question 7*	*Question 10* ....
Question 2	*Question 5*	*Question 8*	*Question 11* ....
Question 3	*Question 6*	*Question 9*	*Question 12* ....

Now cut the coupon or use a photocopy and stick it to a postcard or the back of a sealed envelope. Send it to That ginormously big compo in issue 3, Your Sinclair, *14 Rathbone Place, London W1P 1DE. Meg-aah!*

SPOT THE WALLY



This programmer uses ZX Basic.

Clue ↑



This programmer uses YS *MegaBasic* with...

50 New Commands
Named Procedures
On-Screen Windows
64 Column Text
Full Screen Editor
Smooth Moving Sprites
Programmable Function Keys
Machine Code Monitor
Multi-tasking Subroutines
Background Sound
Line Number Tracing
AUTO Line Numbering
REPEAT...UNTIL Loops
DELETE Line Range
Full Machine Code CALLs
Double-Length POKE
Break Key Control
Three Fonts
User-Defined Character Sizes
Downwards Printing
Character Stipples
Attribute SWAP, FADE and CHANGE
Window PAN, SCROLL and INVERT
Improved Line Editor
...And 22K User Memory
and of course everything that's in ZX Basic!
PLUS FREE Sprite Designer

YS MEGABASIC

YS MegaBasic is only available direct from the *Your Sinclair* Mail Order department. It comes on cassette complete with 30 page manual and is fully microdrive compatible. To order, complete this coupon and mail it with a cheque or postal order for £7.95, payable to Sportscene Specialist Press, to *YS MEGABASIC* OFFER, PO BOX 320, LONDON N21 2NB.
(BLOCK CAPITALS PLEASE)

Name ....

Address ....

....

....

.... Postcode ....

Phone ....

Please allow up to 28 days for delivery.

ONLY £7.95

TASK FORCE

Come on, become one of the elite and join the programmers *Task Force* with *Ian Hoare*. You never know — you might learn something.

First off is **Paul Roberts** from Yeovil who sent in a piece of relocatable code that'll do some amusing things on-screen.

```
0000        ORG   ANY
0010        EI
0020        LD    B,100
0030 LOOP   PUSH  BC
0040        LD    HL,22528
0050        LD    DE,22529
0060        LD    BC,767
0070        LD    A,R
0080        AND   63
0090        LD    (HL),A
0100        LDIR
0110        HALT
0120        LD    A,R
0130        AND   7
0140        OUT   (254),A
0150        POP   BC
0160        DJNZ  LOOP
0170        RET
0180        END
```

And while we're feeling flashy, **Ade Shaw** from Plymouth sent in several tips — try this when your Speccy's feeling bored:
10 FOR n=1 TO 250: OUT 14,n: NEXT n
Ade also sent in an improved routine to toggle printing between screen and printer. To turn on the printer:
OPEN#2,"p"
and to turn it off and return printing to the screen:
CLOSE#2
Cheers Ade! By the way your 'better' input routine isn't! If you do a PAUSE 0 in a subroutine and leave your finger on a key a fraction too long you'll find you've entered the wrong thing.

Clive Seaden from Basingstoke sent in a megashort piece of machine code that'll do a double peek at any address (except 0). It uses the System variable SEED so beware if you use random numbers.

```
10          ORG   ANY
20          LD    HL,(5C76H)
30          LD    C,(HL)
40          INC   HL
50          LD    B,(HL)
60          RET
70          END
```

Use this Basic routine to get the double peek at address p into the variable 's'. The machine code is relocatable so I've called its address 'any'. Just load it in wherever convenient — it's only 7 bytes long.
10 RANDOMIZE p: LET s= USR (any)

Here's a brill way of creating false headers from Basic from **Malcolm Goodman** of Leeds. I've altered it slightly 'cos I like meddling in other people's programs and so it'll work with the Interface 1 connected. I've also used the routine above to get the start address of the Basic program, so don't forget to put the code in. Use the code in *Your Spectrum* 21 to split the number into high and low bytes. What you don't have it? Shame on you. Well, just this once then:

```
DEF FN h(x)=INT (x/256)
DEF FN l(x)=x-256*FN h(x)

10 INPUT "How many bytes ? ";n
20 RANDOMIZE 23635: LET s=USR any
30 LET st=s+n
40 POKE 23641,FN l(st)
50 POKE 23642,FN h(st)
60 DIM n$(10)
70 INPUT "Save name ? ";n$
80 SAVE n$
```

The program will ask you how many bytes you want to create your header to load later. To use this, start the tape recorder on Record as soon as the message appears and stop when you've saved the header. Et voilà!

On the subject of headers, **Gary Proctor** from the Isle Of Man sent in a method of making program names more interesting. Gary was curious how the title 'FLASH LOAD' could come up instead of the boring message 'program: rhubarb' or whatever. Try this:

```
10 LET s$=""
20 LET s$=s$+CHR$ 22+CHR$ 1+CHR$ 0+CHR$ 219+CHR$ 23
```

Mind you it could've been even better if he'd included a couple of extra CHR$s in the title — what about this then:

```
20 LET s$=s$+CHR$ 18+CHR$ 1+CHR$ 19+CHR$ 1+CHR$ 22+CHR$ 1+CHR$ 0+CHR$ 219+CHR$ 239
```

As you can see, there are several interesting ideas. How to make a string contain its own print position info and how to compress two five and four letter words into 2 bytes for starters.

Joseph Otten from Manchester has the perfect way of confounding all those types who like to break into your programs. Use this when you next save a program but do save an unprotected copy first.
*POKE 23613,0: SAVE "name" CODE 23613,PEEK 23627 +256 *PEEK 23628-23613: GOTO 0*
The system variable ERR SP is at 23613/4 so altering it will make all sorts of fun things happen if the program hits an error. This routine by **Andrew Cope** of Exeter provides an ON ERROR GO TO function. This routine isn't relocatable but can be assembled to any convenient address. Andrew uses 64400 to allow room for some redefined characters.

```
0000        ORG   64400
0010        LD    DE,ERR_M
0020        LD    HL,(23613)
0030        LD    (HL),E
0040        INC   HL
0050        LD    (HL),D
0060        RET
0070 ERR_M  LD    A,(23610)
0080        INC   A
0090        LD    BC,(23728)
0100        LD    (23662),BC
0110        XOR   A
0120        DEC   A
0130        LD    (23610),A
0140        INC   A
0150        LD    (23664),A
0160        LD    HL,(23641)
0170        LD    BC,2
0180        CALL  1652H
0190        EX    DE,HL
0200        LD    (HL),232
0210        INC   HL
0220        LD    (HL),13
0230 BTEST  CALL  1F54H
0240        JP    C,12CEH
0250        JR    BTEST
0260        END
```

To use this you'll need to set up the line that you want the ON ERROR routine to jump to. This can be in a subroutine so you can alter it as required. To set up the routine you'll only need to call the code once. After that all errors will be trapped automatically. Andrew suggests the following:

```
10 RANDOMIZE USR 64400
20 LET erl=line number to be jumped to: GO SUB 9000
Rest of program
9000 REM subroutine
9010 POKE 23728 FN l(erl)
9020 POKE 23729 FN h(erl)
9030 RETURN
```

Andrew also makes an interesting suggestion. If you can spare the space it saves time to READ all DATA into an array before the program starts. He reckons it'll halve 'Access time'. And I thought it took less time to read a DATA statement than access a DIMensioned variable. Well I wonder who's right? Why don't you devise a program to act as a benchmark and send it in with your results.

John Whyte of Dunfermline and **Nicholas White** of Newhaven both came up with ways to make your messages more interesting. John's routine will spit out your message one letter at a time with or without sound. You'll need to decide what to put in line 9020 or whether to leave it out altogether if you don't want sound.

```
10 LET n=9000: LET line-0
20 LET a$="Your Sinclair is tops!": GO SUB n
30 REM rest of program
8999 STOP
9000 FOR x=1 TO LEN a$
9010 PRINT AT line,0;a$( TO x)
9020 BEEP 0.05,CODE a$(x)/4: REM Variable sound
OR
9020 BEEP 0.05,0: REM fixed sound.
9030 IF x=LEN a$ THEN BEEP 0.1,30: BEEP 0.1,20
9040 NEXT x
9050 LET line=line+1
9060 RETURN
```

Nicholas's routine is designed to do a similar thing but the message must be 32 characters long. Why not try them both?

```
10 LET a$="YOUR SINCLAIR IS TOPS FOR PROGS."
20 LET line=0: LET n=1000
30 GO SUB n
40 REM rest of program
999 STOP
1000 LET b$="  (32spaces)
  "
1010 LET b$=b$+a$
1020 FOR x=1 TO LEN b$-31
1030 PRINT AT line,0;b$(x TO x+31)
1040 NEXT x
1050 RETURN
```

And finally, **Tim Doulton** from Horsham has a tip for saving protected versions of your programs. First do PEEK 23635 and make a note of the result. If you've got Interface 1 variables present you'll get the answer five, if not you'll get 203. Don't attempt to save a protected version if Interface 1 variables are present. Right, to save a protected version of your program enter this as a direct command:
POKE 23635,n: SAVE "name"
Where n is any number below 203. To load the protected program enter:
POKE 23635,n:LOAD""
Then all you've got to do is:
POKE 23635,203

Send your programs to Ian Hoare, Task Force, *Your Sinclair*, 14 Rathbone Place, London W1P 1DE.

YOU CAN'T BEAT IT!

What's got long greasy hair, makes nasty smalls in the corner and creates one hell of a din laying into his kit? A drummer, that's what! Now *Rachael Smith* reckons she's found a more refined alternative — Cheetah's *SpecDrum*.

Drummers are a real pain for a new band. When you're starting out you can never find one — and if you make it big they're always the ones who drive the sports cars into the swimming pool! Well, *SpecDrum* may prove the answer. For thirty quid you get a complete drum kit in the shape of a small box to clip to your Speccy's behind, plus a tape.

The hardware contains the electronic wizardry that gives you three channels of percussion. And as nobody in his right mind would want all that mayhem beeping through the inbuilt speaker, you'll just have to connect it to a hi-fi or other amp via the attached phone, possibly using an adaptor.

Mind you, the really clever stuff is on the tape. Here you'll find your kit of eight digitally sampled sounds. You can use any three of them simultaneously — within certain limitations. *SpecDrum* comes with a standard rock kit, plus high tom or rim substitutes. The versatility doesn't stop at that — there's even the promise of further kits to come, such as a latin one.

But back to the present. Once you've listened to the eleven examples you'll be dying to create your own tracks, building with rhythmic blocks, creating your patterns then linking and looping them into completed songs. And as the instructions are probably the worst part of the package you can take a look at how this process works here.

There's a lot of memory for storing your tracks. You'll soon find that using the system becomes second nature to you. But the impressive feature is that quality of the sound — it'd easily do for demo tapes. That's why there's a synchro facility — I reckon a full MIDI interface would've proved far too costly. As it is, *SpecDrum* is unbelievably cheap and great fun to use. A definite hit.

FAX BOX

Name	SpecDrum
Supplier	Cheetah
Price	£29.95

BEATING THE DRUM

As soon as the program's loaded you're presented with the following series of menus — provided *SpecDrum's* connnected, of course!

Main Menu

From the main menu you can access further facilities as well as all the other menus

Here's the list of songs you're working on. The Load/Save menu has options for individual titles or dumps for up to 16 tracks.

You get the chance to hear your track as it stands at any stage of the proceedings. Set around 125 the tempo is a rockin' beat, but boot it up to 999 and your snare will sound like a pneumatic drill!



To start you'll need to know how to divide each beat. Though 32 parts are available, you're unlikely to need more than 12 unless you're getting into very complex rhythms.

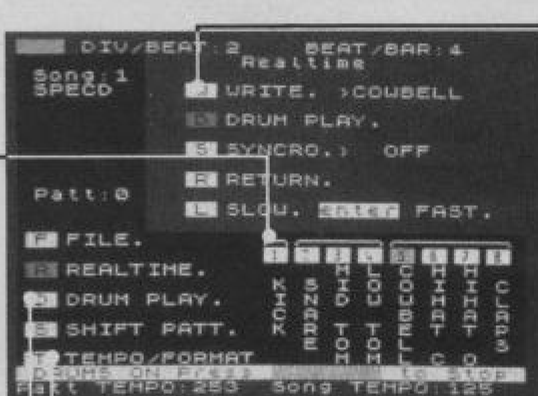
Clever this. If you have multi-track recording facilities you can use *SpecDrum* to sync to itself via a pulse track output from the mic socket.

Pattern Menu

Pressing 'P' takes you to the first stage of creation — the pattern menu.

Here's your drum kit. Note that it's divided into three groups, so you can't play the Mid and Low Toms simultaneously, for example.

And this is where the drums are played and displayed, by number. The three channels are clearly illustrated, and you can easily make alterations under the black cursor. Above and below are the bars you're not currently working on.



Of course you may prefer tapping out the track to typing it in. This calls a sub menu which allows you to specify the sound. Then beat out that rhythm on a (Spec)Drum.

Tempo/Format chooses the time signature and this blue line shows where the beats and bar lines come. Closed Hi Hat and/or bass can be automatically added to help you keep time. A nice touch.

Edit Menu

You've got your bars of beats so it's time to put them together with the edit menu.

There are the individual patterns. To hear them again just insert them in the black window below and press D for Drum — you can hear them in context and take them out if you don't like the effect.

This is the number of the pattern you've chosen, increased or decreased by pressing 1 and 2 respectively ....



....And this is the number of times it plays, from 1 to 255, which could be rather repetitive! 3 and 4 control this, and once you're satisfied you just scroll it to the left with Enter

Use Shift 9 to insert, Shift 0 to delete, and eventually you'll get it right. Then it's back to the main menu for one last time where F tidies the data and stores it as economically as possible. Simple, eh?

DRUMMIN' UP.

Rat Scabies of *The Damned* once said that he took up drumming 'cos he liked hitting things. For all of you who've never thrashed a kit here's a quick run down of what you get.

Bass The one you paint the band's name on. It hits you in the pit of the stomach so use it to accentuate the beat.

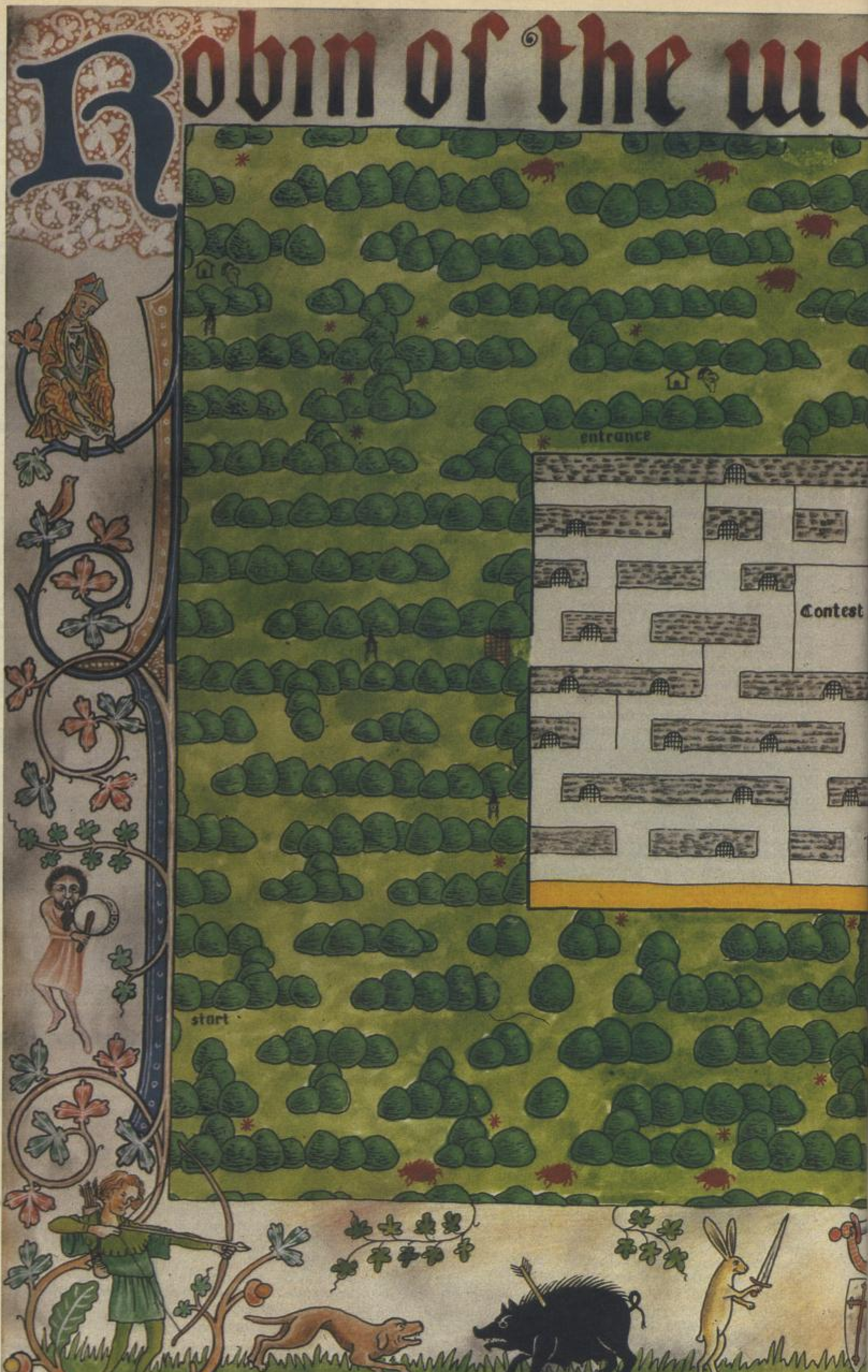
Snare 'Toppy' sounDing, it can be used for sizzling rolls. Found in most sorts of music, an optional voice allows for striking the 'Rim'.

Toms Mid and Low are standard with an optional High. Over-use these tuned drums and you'll sound like a bad disco mix but moving between pitches can work well.

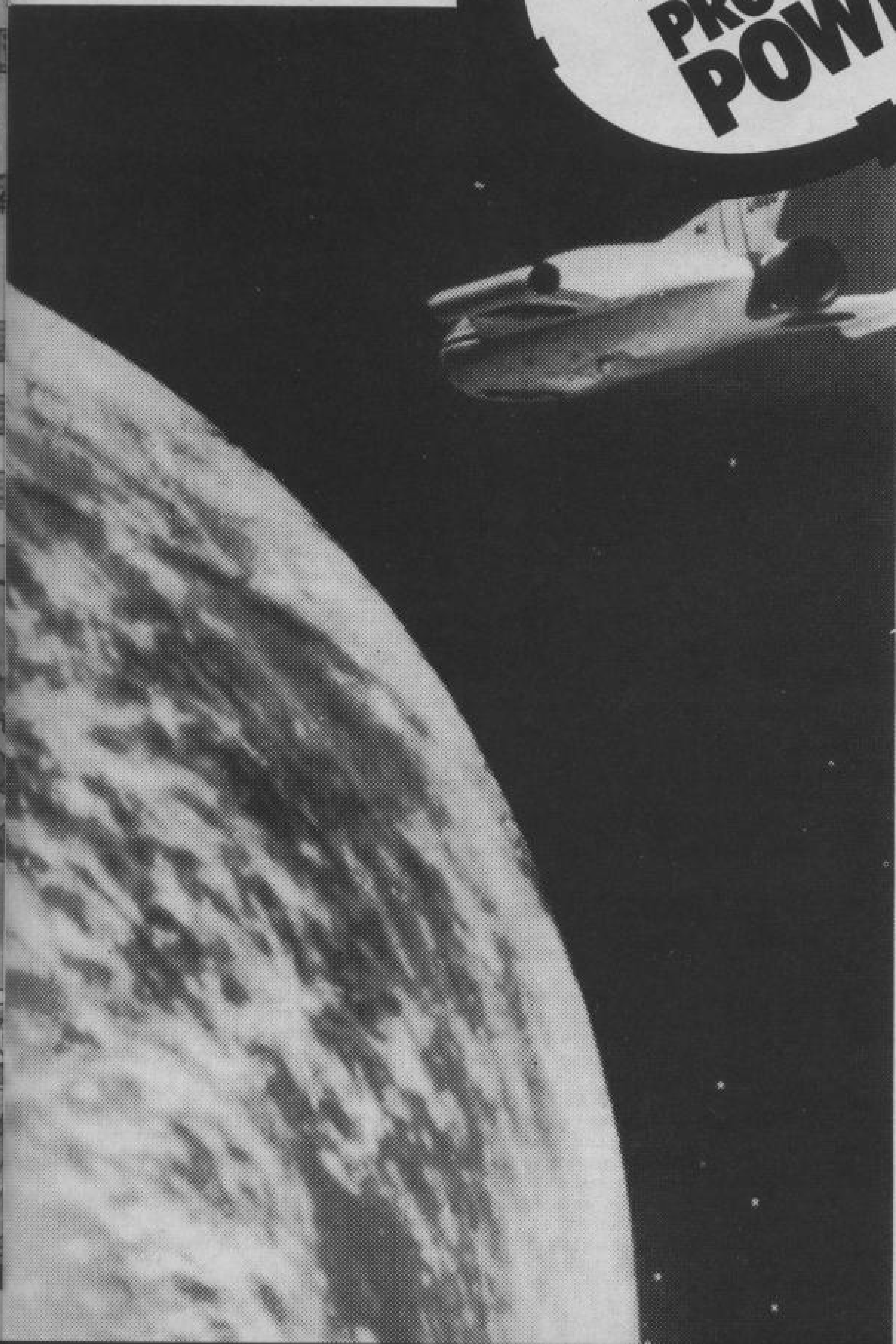
Hi-Hat Your cymbal can be in two states, Closed, or for a real crash, Open. Use sparingly unless you're into HMO (Heavy Metal overkill).

Cowbell Goes great with yodelling. Not one for the rockers but it can be nicely funky if it alternates with your cymbal.

Claps Another disco one in the cymbal section. Use it for steady, repetitive rhythms.

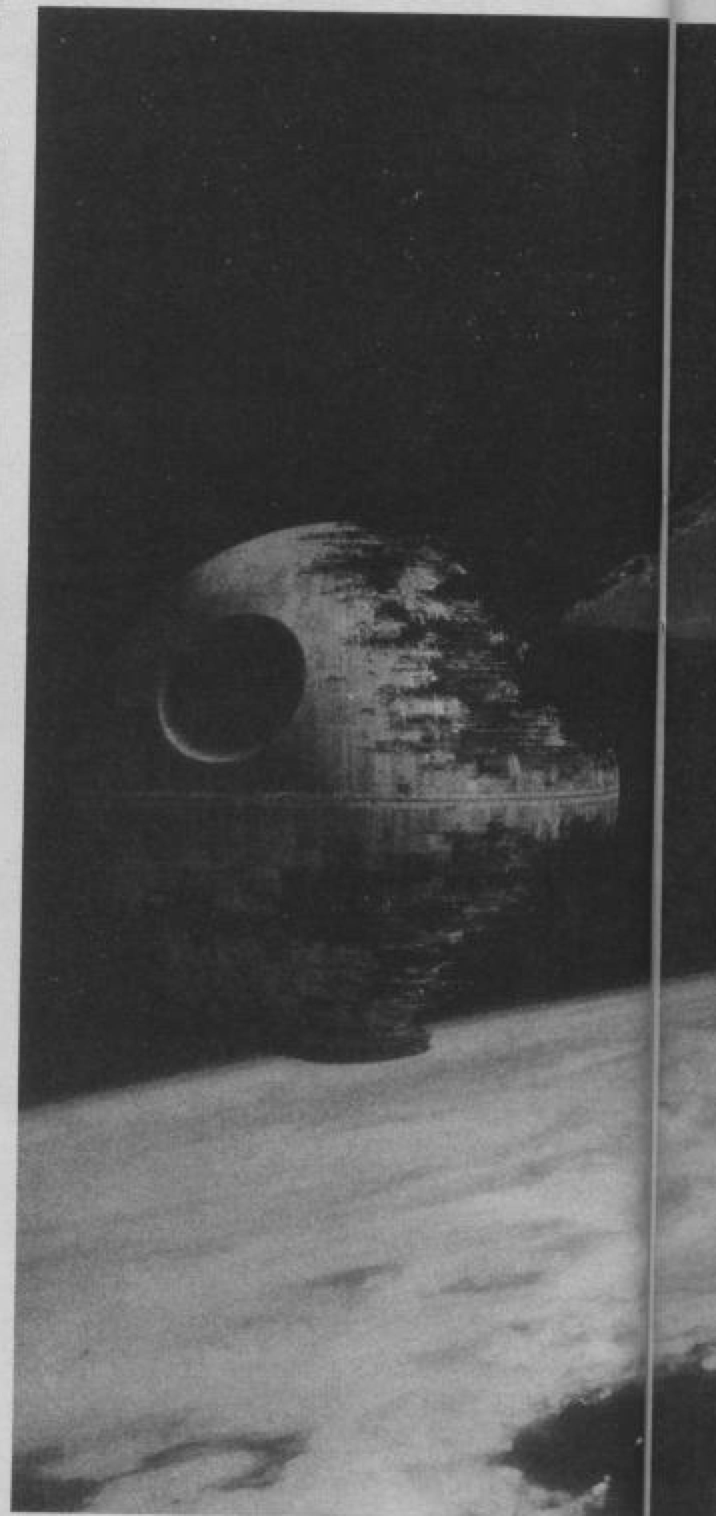

Robin of the wo
entrance
Contest
start

YOUR SINCLAIR PROGRAM POWER



8 PAGE PULL-OUT

BATTLE FLEET ORION



by I K McDonald

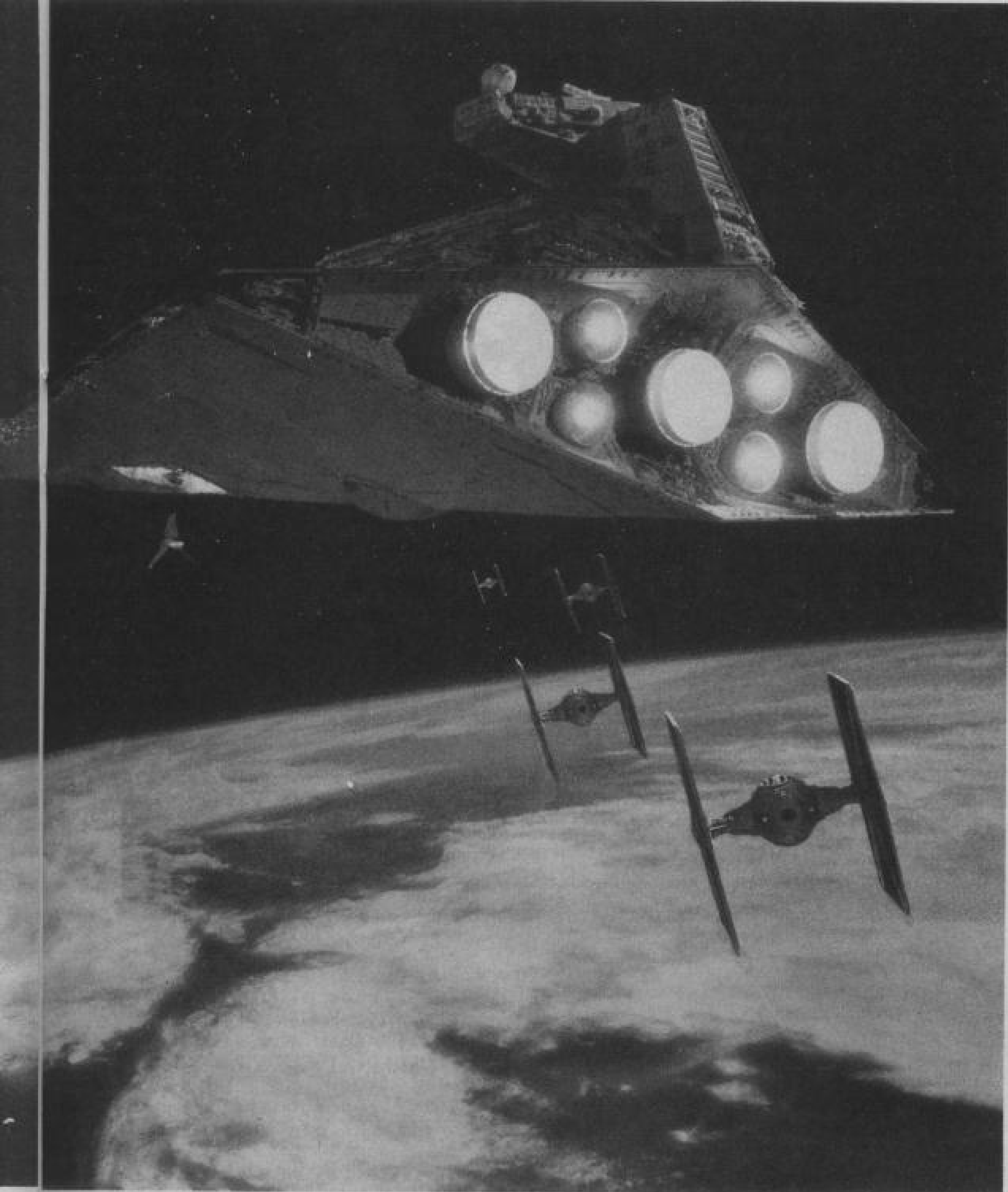
This one's really hot. It's a forty screen shoot'em up that's written in Basic but it's as tricky as any machine code equivalent.

Your mission is to destroy an enemy planet's life forms before they reach Earth and destroy you. To have a crack at it, you'll have to travel backwards through time by disappearing up a black hole. Naaaasty!

As soon as you've entered the game — and you can leave out the intructions once you've read them — save it with SAVE "Orion" LINE 7000 and then start it with RUN 7000.

This program is available on Digi'T'ape

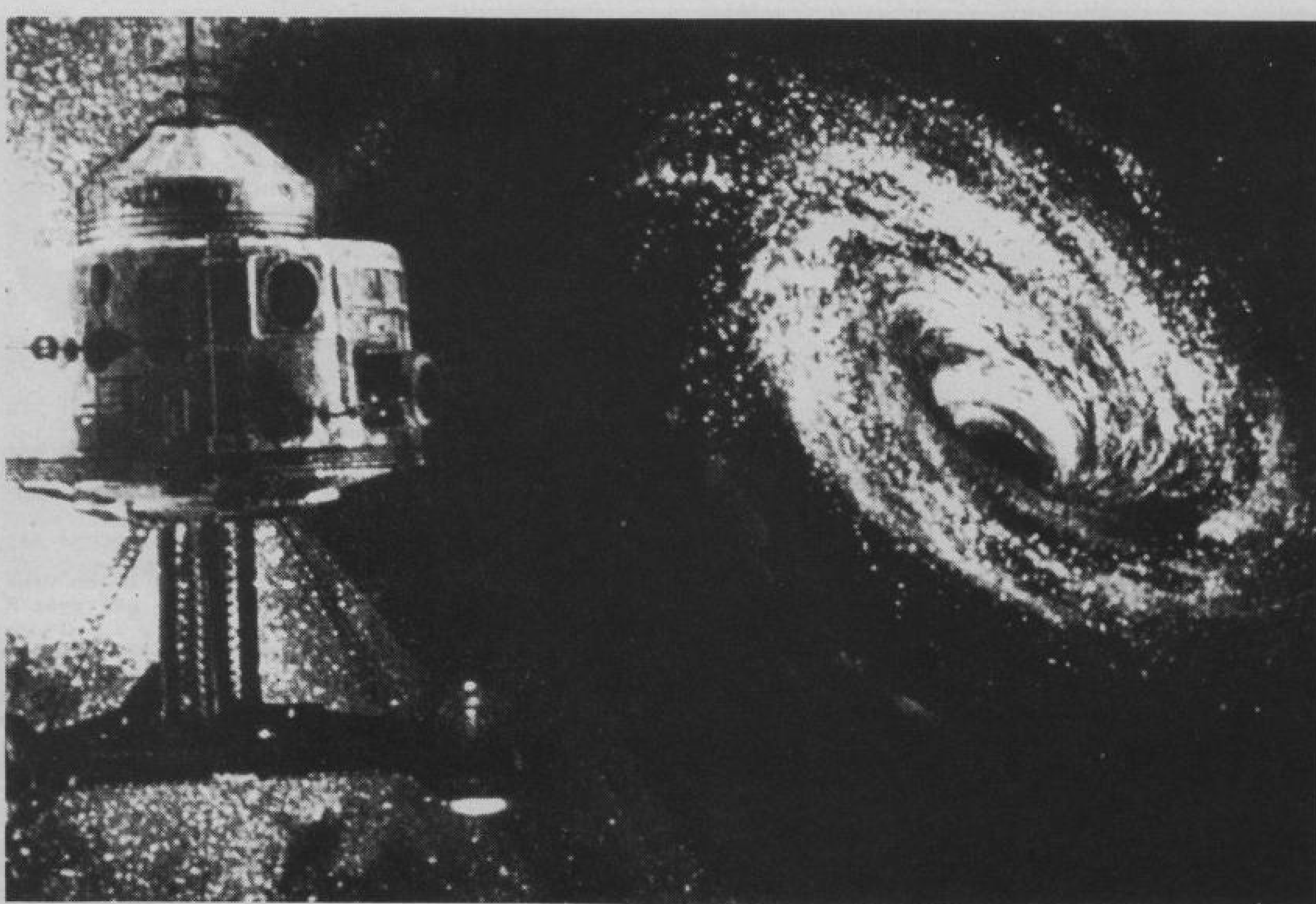
```
   1 DEF FN m$(s,x)=("Spectral"
AND FN m(s,x)=0)+("Silver" AND F
N m(s,x)=1)+("Gold" AND FN m(s,x
)=2)+("Diamond" AND FN m(s,x)=3)
: DEF FN m(s,x)=INT ((s-INT (s/x
)*x)/(.3*x))
  50 LET b=b+(INKEY$="8" AND b<3
0)-(INKEY$="5" AND b>1)
  60 PRINT AT 21,b-1;"   "
  65 IF xm THEN  PRINT AT xm,ym;
" "
  70 IF NOT xm AND INKEY$="0" TH
EN  LET xm=21: LET ym=b: BEEP .0
5,-20
  80 IF xm>=x AND x>=xm-3 THEN
IF y<=ym AND ym<=y+s-1 THEN  IF
a$(ym-y+3)<>" " THEN  GO SUB 100
0
  90 IF xm THEN  LET xm=xm-3: IF
 xm THEN  PRINT AT xm,ym;" "
 110 PRINT AT x,y;d$: LET x=x+SG
N (RND-.5): LET y=y+SGN (RND-.5)
 120 IF x=0 THEN  LET x=1
 122 IF y<0 THEN  LET y=0
 124 IF y+s>=32 THEN  LET y=32-s
 128 IF x>=21 THEN  GO SUB 6000
 129 PRINT AT x,y;a$
 130 IF RND<.05 AND NOT xf THEN
 GO SUB 4000
 150 IF xf THEN  PRINT AT xf,yf;
"
 "( TO LEN f$-2): LET xf=xf+2: I
F xf>=21 THEN  GO SUB 5000
 170 IF xf THEN  PRINT AT xf,yf;
f$
 175 IF NOT cls THEN  GO TO 0
 180 IF cls=-1 OR cls=-2 THEN  G
O TO 2000
 190 IF cls=1 OR cls=-2 THEN  GO
 TO 3000
 200 GO TO 50
1005 PRINT AT x,ym; BRIGHT 1;"
"
1010 LET ss=ym-y+1: LET a$(ss+2)
=" ": LET g$(ss+2)=" ": LET sc=s
c+sca: BEEP .01,lvl
1015 IF crf THEN  GO TO 1080
1020 LET ss=ss-1: IF ss=0 THEN
GO TO 1040
1030 IF a$(ss+2)=" " THEN  GO TO
 1040
1035 LET a$(ss+2)=" ": LET g$(ss
+2)=" ": LET sc=sc+sca: BEEP .01
,lvl: GO TO 1020
1040 LET ss=ym-y+1
1050 LET ss=ss+1: IF ss>s THEN
GO TO 1080
1060 IF a$(ss+2)=" " THEN  GO TO
 1080
1070 LET a$(ss+2)=" ": LET g$(ss
+2)=" ": LET sc=sc+sca: BEEP .01
,lvl: GO TO 1050
1080 IF a$(3 TO )=d$ THEN  LET c
ls=1
1100 LET xm=0: PRINT AT 0,14; BR
IGHT 1;sc
1110 BEEP .01,lvl: RETURN
2010 LET sh=sh-1: PRINT AT 0,29;
 BRIGHT 1; INK 1+(6  AND sh>1);s
h
2020 FOR a=0 TO -10 STEP -.5: BE
EP .01,a: NEXT a
2025 IF sh>0 AND cls=-2 THEN  GO
 TO 3000
2030 IF sh>0 THEN  LET cls=0: GO
 TO 50
2040 GO TO 7600
3003 LET crf=0: PRINT AT x,y;d$
3005 LET lvl=lvl+1
3010 FOR a=0 TO 7: BORDER a: BEE
P .1,a+lvl-20: NEXT a: BORDER 0
3015 INPUT "": GO SUB 8990+lvl*1
0
3020 LET s=LEN a$-2: PRINT AT 0,
14; BRIGHT 1;sc
3030 LET d$="
                "( TO s)
3040 LET cls=0: GO TO 0
4010 BEEP .05,-10: LET f$=g$
4020 LET xf=x: LET yf=y
4030 RETURN
5010 IF yf<=b AND b<yf+s THEN  I
F f$(b-yf+3)<>" " THEN  LET cls=
-1
5020 LET xf=0: RETURN
6005 LET cls=1
6010 IF y<=b AND b<y+s THEN  IF
a$(b-y+3)<>" " THEN  LET cls=-2
6020 PRINT AT 21,y;d$: RETURN
7001 RESTORE : FOR a=0 TO 135: R
EAD b: POKE USR "a"+a,b: NEXT a
7005 PAPER 0: BORDER 0: INK 7: C
LS
7007 DIM h$(10,20): DIM h(10)
7010 PRINT AT 0,5; BRIGHT 1;"Bat
tlefleet Orion!";AT 0,5; OVER 1;
"__________________"' I.K. Mc D
onald"
7020 PRINT  INK 4;AT 3,0;" You h
ave been chosen to attempta peri
lous attack on the enemy  fleet
at the heart of the Orion nebula
."
7030 PRINT  INK 6;" You must pen
etrate the Orion   defences and
the storms of      asteroids and
 achieve causality violation (ti
me travel) several times in orde
r to destroy the  Orions before
 they become a    threat to Ear
th. This is done byentering seve
ral black holes in the course of
 your attack. Use  the controls
marked 5,8 and 0 tosteer and fir
e."
7040 PRINT  INK 5;" Not only do
the enemy ships    fire but kami
kaze attacks (whichdue to photon
 shielding cannot  be hit) could
 well occur."
7045 INPUT "Press ""Enter"" to c
ontinue"; LINE a$: CLS
7050 CLS
7060 PRINT  INK 6;" Your shields
 can survive 3 hitsbefore your s
hip explodes. The  computer reco
rd of your attack  is summarised
 as a battle rating,which is dis
played on-screen."
7065 PRINT  INK 6;" The rating v
alues will be","displayed at the
 bottom of the  screen."
7070 PRINT  INK 4;" In black hol
es,shoot down the  material trap
ped in the force   wall,and if t
he wall approaches you,dodge the
 material trapped  inside the fo
rce wall to enter  the black hol
e. Avoid any matterthat you over
take when entering the black hol
e-due to an opticalillusion it w
ill appear to be   leaving the h
ole."
7075 PRINT  INK 4;" When attacki
ng space stations  remember that
 1 hit will be     sufficent to
destroy the stationin a sub-atom
ic chain reaction."
7080 INPUT "Press ""Enter"" to c
ontinue"; LINE a$: CLS
7095 PRINT  INK 5;" When the Ori
```



```
on home planet is   reached,the s
hip will eject     canisters of
toxic crystals intothe planets a
tmosphere. As the  method of Tim
e travel used is   very approxim
ate,hazards due to simple Orion
starfighters or    the Orion sta
rsystem still","forming are poss
ible."
7100 PRINT  INK 5;" If forward T
ime Travel becomes neccessary,yo
u will be placed insuspended ani
mation until the    desired time
is reached."
7110 PRINT  INK 4; BRIGHT 1;" EV
EN NORMALLY PLACID OBJECTS    COU
LD EJECT RADIATION OR COSMIC PAR
TICLES,OR BE CAMOFLAUGED       ORI
ON FORCES. "; INK 6'"  EXTREME C
AUTION ADVISED."
7120 INPUT "Press ""Enter"" to c
ontinue"; LINE a$
7505 LET xf=0: LET crf=0: LET yf
=0: LET b=10: LET lvl=1: LET sh=
3: LET xm=0: PAPER 0: INK 7: BOR
DER 0: INPUT "": CLS
7510 LET sc=0: PRINT AT 0,0; BRI
GHT 1;"Battle Rating 0        Shie
lds 3  "
7520 GO TO 3010
7600 PAPER 7: INK 9: CLS : BORDE
R 7: INPUT "": CLS : PRINT AT 10
,10; INK 9;"Game Over": FOR a=1
TO 50 STEP 5: BEEP .01,a: NEXT a
7610 IF sc<=h(10) THEN  GO TO 77
00
7620 FOR a=1 TO 10: IF sc>h(a) T
HEN  GO TO 7640
7630 NEXT a
7640 FOR a=10 TO a+1 STEP -1
7650 LET h(a)=h(a-1): LET h$(a)=
h$(a-1)
7660 NEXT a
7665 LET h(a)=sc
7670 PRINT  INK 2;AT 15,0;"You h
ave made it into the high  score
 table !": FOR b=1 TO 32 STEP 2:
 BEEP .05,b: BEEP .05,b-2: NEXT
b
7680 INPUT "Name ? "; LINE a$: I
F LEN a$>20 THEN  PRINT )1;"Sorr
y-max length 20 letters": BEEP 1
,0: PAUSE 0: GO TO 7680
7690 LET h$(a)=a$
7705 PAPER 1: BORDER 1: CLS : PR
INT TAB 10;"Hall of Fame"''
7710 FOR a=1 TO 10: INK 8-a+(a-5
 AND a>5): PRINT a;TAB 2;h$(a);"
 ";h(a): BEEP .1,a
7720 PRINT "Decorations ";
7730 IF h(a)<3000 THEN  PRINT "N
one"
7732 IF h(a)<6000 AND h(a)>=3000
 THEN  PRINT FN m$(h(a),3000);"
Spark"
7734 IF h(a)<9000 AND h(a)>=6000
 THEN  PRINT FN m$(h(a),3000);"
Heart"
7736 IF h(a)<12000 AND h(a)>=900
0 THEN  PRINT FN m$(h(a),3000);"
 Comet"
7738 IF h(a)<18000 AND h(a)>=120
00 THEN  PRINT FN m$(h(a),6000);
" Star"
7750 IF h(a)<24000 AND h(a)>=180
00 THEN  PRINT FN m$(h(a),6000);
" Cluster"
7760 IF h(a)<36000 AND h(a)>=240
00 THEN  PRINT FN m$(h(a),12000)
;" Supercluster"
7770 IF h(a)>=36000 THEN  PRINT
"Honorary Generalship"
7800 NEXT a: BEEP .8,0: BEEP .4,
0: BEEP .4,0: BEEP .8,2: BEEP .8
,4
7900 INPUT "Press ""enter"" for
another game"; LINE a$: GO TO 75
00
8005 FOR a=0 TO 7: BORDER a: BEE
P .1,a*2: NEXT a: LET sh=sh+1: P
RINT AT 0,29; BRIGHT 1;sh: BORDE
R 0: RETURN
9003 LET a$=CHR$ 16+CHR$ 2+"
                  ": LET
sca=100: LET g$=CHR$ 16+CHR$ 5+"
        "
9007 PRINT )1;"Type 1 Orion Vipe
rs-100 brp": LET x=1: LET y=6: R
ETURN
9010 LET a$=CHR$ 16+CHR$ 6+"
            ": L
ET sca=10: LET g$=CHR$ 16+CHR$ 7
+"
 "
9015 PRINT )1;"Orion Spacestatio
n-170 brp": LET x=1: LET y=2: RE
TURN
9020 LET a$=CHR$ 16+CHR$ 6+"
                     "
: LET sca=10: LET g$=CHR$ 16+CHR
$ 6+"                          "
9025 PRINT )1;"Asteriods-10 to 3
0 brp": LET sca=30: LET x=10: LE
T y=3: RETURN
9030 LET a$=CHR$ 17+CHR$ 1+"

        ": LET g$=CHR$ 16+CH
R$ 1+"
              "
9035 PRINT )1;"Black hole event
horizon": PAUSE 100: INPUT "": P
RINT )1;"Trapped matter-5 to 10
brp": LET sca=5: LET x=10: LET y
=0: RETURN
9040 LET a$=CHR$ 16+CHR$ 1+"
            ": LET g$=
CHR$ 19+CHR$ 1+"
  "
9045 PRINT )1;"Asteroids-10 to 2
0 brp": LET sca=5: LET x=1: LET
y=0: RETURN
9050 PRINT )1;"Dragonstar fighte
rs-200 brp": LET a$=CHR$ 16+CHR$
 4+"
": LET g$=CHR$ 16+CHR$ 1+"
                   "
9055 LET sca=200: LET x=1: LET y
=5: RETURN
9060 PRINT )1;"Backup Orion Vipe
rs-100 brp": LET a$=CHR$ 16+CHR$
 2+"
": LET g$=CHR$ 16+CHR$ 5+"
                   "
9065 LET sca=100: LET x=1: LET y
=5: RETURN
9070 PRINT )1;"Cosmic Dust-20 to
60 brp": LET a$=CHR$ 16+CHR$ 5+"

 ": LET g$=CHR$ 16+CHR$ 5+"
                   "
9075 LET sca=20: LET x=1: LET y=
3: RETURN
9080 PRINT )1;"Orion probes-40 o
r more brp": LET a$=CHR$ 16+CHR$
 4+"                   ":
 LET g$=CHR$ 16+CHR$ 5+"
          "
9085 LET sca=40: LET x=1: LET y=
7: RETURN
9090 PRINT )1;"Orion spacestatio
```



```
ns-450 plus brp": LET a$=CHR$ 16
+CHR$ 6+"

 ": LET g$=CHR$ 16+CHR$ 7+"

         "
9095 LET sca=50: LET x=1: LET y=
0: RETURN
9100 GO SUB 8000: PRINT )1;"Orio
n probes-40 brp": LET a$=CHR$ 16
+CHR$ 4+"
                   ": LET g
$=CHR$ 16+CHR$ 5+"

 "
9105 LET sca=40: LET x=1: LET y=
0: RETURN
9110 PRINT )1;"Orion ""Batfighte
rs"" -600 brp": LET a$=CHR$ 16+C
HR$ 6+"
        ": LET g$=CHR$ 1
6+CHR$ 5+"
         "
9115 LET sca=200: LET x=1: LET y
=6: RETURN
9120 PRINT )1;"Black hole-matter
 5 brp": LET a$=CHR$ 17+CHR$ 1+"

          ": LET g$=CHR$
16+CHR$ 1+"
                "
9125 LET sca=5: LET x=10: LET y=
0: RETURN
9130 PRINT )1;"Unidentified Star
creature": PAUSE 200: INPUT "";
PRINT )1;"Starcreature-1000 brp"
: LET a$=CHR$ 16+CHR$ 4+"
                   ":
LET g$=CHR$ 17+CHR$ 3+"

        "
9135 LET sca=500: LET x=5: LET y
=0: RETURN
9140 PRINT )1;"Asteroids-100 bpr
 or more": LET a$=CHR$ 16+CHR$ 6
+"
   ": LET g$=CHR$ 21+CHR$ 0+"
                "
9145 LET bpr=100: LET x=10: LET
y=5: RETURN
9150 PRINT )1;"Black hole-matter
 5 brp": LET a$=CHR$ 17+CHR$ 1+"

          ": LET g$=CHR$ 16+C
HR$ 1+"
                "
9155 LET sca=5: LET x=10: LET y=
0: RETURN
9160 PRINT )1;"Orion detector pr
obe-200 bpr": LET a$=CHR$ 16+CHR
$ 2+"       ": LET g$=C
HR$ 16+CHR$ 5+"         "
9165 LET sca=25: LET x=5: LET y=
10: RETURN
9170 PRINT )1;"Mk 2 Orion Vipers
-200 bpr": LET a$=CHR$ 16+CHR$ 6
+"
   ": LET g$=CHR$ 16+CHR$ 5+"

 "
9175 LET sca=200: LET x=1: LET y
=7: RETURN
9180 PRINT )1;"Force Field-100bp
r per part": LET a$=CHR$ 17+CHR$
 3+" ____________________________
___ ": LET g$=CHR$ 16+CHR$ 1+"

                "
9185 LET crf=1: LET x=15: LET y=
0: LET sca=100: RETURN
9190 PRINT )1;"Orion probes-200b
pr": LET a$=CHR$ 16+CHR$ 6+"

      ": LET g$=CHR$ 16+CHR$
5+"
                "
9195 LET sca=200: LET x=13: LET
y=0: RETURN
9200 GO SUB 8000: PRINT )1;"Orio
n research lab-500bpr": LET a$=C
HR$ 16+CHR$ 6+"
    ": LET g$=CHR$ 16+CHR$ 5+"
                "
9205 LET sca=50: LET x=10: LET y
=10: RETURN
9210 PRINT )1;"Warning:no correl
ation between": PAUSE 0: INPUT "
": PRINT )1;"radar and visual in
put.": PAUSE 0: INPUT ""
9213 GO TO 9290
9223 PRINT )1;"Dragonstar fighte
rs-200 brp": LET a$=CHR$ 16+CHR$
 4+"
": LET g$=CHR$ 16+CHR$ 1+"
            "
9225 LET sca=200: LET x=10: LET
y=5: RETURN
9230 PRINT )1;"Orion probes-10 b
rp": LET a$=CHR$ 16+CHR$ 6+"
       ": LET g$=CHR$
16+CHR$ 7+"         "
9235 LET x=1: LET y=5: LET sca=2
.5: RETURN
9240 PRINT )1;"Orion vipers in d
efensive": PAUSE 0: INPUT "": PR
INT )1;"formation-": PAUSE 0: IN
PUT "": PRINT )1;"Mk 1 Orion Vip
ers-100 bpr": LET crf=1: LET x=1
: LET y=5
9245 LET sca=1008: LET a$=CHR$ 1
6+CHR$ 6+"
  ": LET g$=CHR$ 16+CHR$ 5+"
         ": RETURN
9250 PRINT )1;"Cruisers with clo
aking devices!": PAUSE 50: INPUT
 "": PRINT )1;"Invisible cruiser
s-variable brp": LET a$=CHR$ 16+
CHR$ 0+"a  aaa  aa   a    a   aa
a": LET g$=CHR$ 16+CHR$ 5+"
            "
9255 LET sca=400: LET x=1: LET y
=3: RETURN
9260 PRINT )1;"Black hole-matter
 5 bpr": LET a$=CHR$ 17+CHR$ 1+"

          ": LET g$=CHR$ 1
6+CHR$ 1+"
            "
9265 LET sca=5: LET x=1: LET y=0
: RETURN
9270 PRINT )1;"Black hole-matter
```

```
5 bpr": LET a$=CHR$ 17+CHR$ 1+"

                ": LE
T g$=CHR$ 16+CHR$ 1+"

     "
9275 LET sca=5: LET x=1: LET y=0
: RETURN
9280 IF RND>.7 THEN  LET lvl=lvl
-1: GO TO 9270
9283 PRINT )1;"Orion Cruisers in
 Ambush-800 brp": LET a$=CHR$ 16
+CHR$ 5+"
              ": LE
T g$=CHR$ 16+CHR$ 2+"

    ": LET crf=1
9285 LET x=17: LET y=1: LET sca=
100: RETURN
9290 PRINT )1;"Orion Cruisers-60
0 brp": LET a$=CHR$ 16+CHR$ 5+"

         ": LET g$=CHR$
 16+CHR$ 2+"
                  "
: LET crf=1
9295 LET x=1: LET y=1: LET sca=1
00: RETURN
9300 IF lvl=31 THEN  GO SUB 8000
9340 IF RND>.2 THEN  GO TO 9100+
10*INT (RND*4)
9351 PRINT )1;"Asteroids-20 bpr"
: LET g$=CHR$ 16+CHR$ 6+"
                    ": LET x=1
7: LET y=1: LET sca=20
9353 LET a$=CHR$ 16+CHR$ 3: FOR
a=1 TO 29: LET a$=a$+"      "(
INT (RND*5)+1): NEXT a: RETURN
9360 PRINT )1;"Orion home Starsy
stem entered": PAUSE 0: INPUT ""
: PRINT )1;"Orion Sattelites-100
 brp": LET a$=CHR$ 16+CHR$ 2+"
                    ":
 LET g$=CHR$ 16+CHR$ 2+"
                 ": LET s
ca=100: LET x=10: LET y=5: RETUR
N
9370 PRINT )1;"Canisters launche
d": LET a$=CHR$ 17+CHR$ 2+"_____
___________________________": LE
T g$=CHR$ 16+CHR$ 2+"

     "
9375 PAUSE 0: INPUT "": PRINT )1
;"Atomic Missile Launcher-3200 b
pr": LET crf=1: LET x=1: LET y=0
: RETURN
9380 PRINT )1;"Orion Mk 1 Vipers
-100 bpr": LET a$=CHR$ 16+CHR$ 2
+"
     ": LET g$=CHR$ 16+CHR$ 5
+"
     ": LET x=10: LET y=2: LE
T sca=100: RETURN
9390 PRINT )1;"Success!": FOR a=
0 TO 7 STEP .5: BEEP .1,a: BEEP
.1,a-2: BORDER a: NEXT a: BORDER
 0: INPUT "": GO SUB 8000: LET l
vl=1: GO TO 9000
9800 GO SUB 9000: RETURN
9903 DATA 24,60,189,189,255,189,
126,126
9905 DATA 8,16,8,16,8,16,8,16,24
,0,0,24,0,24,24,0,36,60,60,24,24
,24,24,0
9910 DATA 24,24,0,24,0,0,24,0,16
,2,64,16,136,0,17,64
9920 DATA 0,24,60,126,153,129,66
,0,0,126,66,195,66,195,66,126
9925 DATA 0,231,219,90,90,102,60
,24
9930 DATA 0,28,34,20,34,73,154,1
00,0,112,138,151,101,7,96,8,60,6
6,129,66,148,130,100,24
9940 DATA 0,2,1,1,15,1,1,2
9950 DATA 0,126,36,189,255,255,1
53,24,0,60,66,129,129,129,66,60,
0,21,21,191,254,250,72,64
9955 DATA 0,168,168,253,127,95,2
0,2
```

MEGA-BERT

by Chris Gresty

Chris Gresty's *Mega-Bert* is a cunning conversion of the arcade *Q-Bert* into Basic — and it's easily equal to its machine code equivalents. You (or Bert!) can pirouette over the pyramids, slip-along-a-Sly Simon or mix it with Masher the Marble — Masher by name, Masher by nature.

This well-structured program has plenty of REM statements so it won't be hard to change things around to suit your own tastes.

```
 10 FOR f=USR "a" TO USR "u"+7
 20 READ a: POKE f,a: NEXT f
 25 GO SUB 4000
 30 PAPER 0: BORDER 0: INK 0: B
RIGHT 1: CLS
 34 GO TO 500
 35 REM
    >>>DRAW GAME SCREEN <<<

 38 PAPER p1: INK 0
 40 PRINT AT 1,12;"◤ ◥"
 50 PRINT AT 3,10;"◤     ◥"
 60 PRINT AT 5,8;"◤         ◥"
 70 PRINT AT 7,6;"◤
◥"
 80 PRINT AT 9,4;"◤
    ◥"
 90 PRINT AT 11,2;"◤
         ◥"
100 PRINT '"◤
       ◥"
110 INK 3
115 PRINT AT 1,13;" "
120 PRINT AT 2,12;"◣ ◢"
130 PRINT AT 3,11;" ◥◤ "
140 PRINT AT 4,10;"◣◢◣◢"
150 PRINT AT 5,9;" ◥◤◥◤ "
160 PRINT AT 6,8;"◣◢◣◢◣◢"
170 PRINT AT 7,7;" ◥◤◥◤◥◤
"
180 PRINT AT 8,6;"◣◢◣◢◣◢◣
◢"
190 PRINT AT 9,5;" ◥◤◥◤◥◤
◥◤ "
200 PRINT AT 10,4;"◣◢◣◢◣◢
◣◢◣◢"
210 PRINT AT 11,3;" ◥◤◥◤◥◤
◥◤◥◤ "
220 PRINT AT 12,2;"◣◢◣◢◣◢
◣◢◣◢◣◢"
230 PRINT AT 13,1;" ◥◤◥◤◥◤
◥◤◥◤◥◤ "
240 PRINT AT 14,0;"◣◢◣◢◣◢
◣◢◣◢◣◢◣◢"
250 PAPER 0: PRINT AT 15,0;"◥◤
◥◤◥◤◥◤◥◤◥◤◥◤"
260 RESTORE 9500
270 PAPER 1: FOR f=1 TO 49: REA
D u,v: PRINT AT u,v;" ": NEXT f
300 INK 7: PLOT 1,39: DRAW 253,
0: DRAW 1,-1: DRAW 0,-37: DRAW -
1,-1: DRAW -253,0: DRAW -1,1: DR
AW 0,37
320 PRINT AT 18,1;"SCORE>>>";AT
20,1;"LEVEL>>>";AT 18,16;"LIVES
>>>";AT 20,14;"CHANGE TO>"
490 REM
        >>>VARIABLES<<<

499 RETURN
500 LET p1=6: LET p2=7: LET p3=
5: LET p4=0: REM    > PAPER COLO
URS <
501 LET x=13: LET y=13: REM
>X*BERT's co-ords<
502 LET d=1
510 LET s=0: LET sx=1: LET sy=1
3: REM >SNAKE co-ords<
520 LET b=1: LET bx=13: LET by=
1: REM > BALL co-ords <
540 LET sc=0: REM > SCORE <
550 LET l=3: REM > LIVES <
560 LET lev=1: REM > LEVEL <
570 LET p=1: REM > FLYING SAUCE
R co-ords <
599 REM
        >>>MAIN LOOP<<<

600 GO SUB 35
601 PRINT AT 20,25; PAPER p2; I
NK 3;"◣◢";AT 19,25; INK 0;"◤◥"
;AT 21,25; PAPER 0; INK 3;"◥◤";
AT 21,26; PAPER 1;" "
605 PRINT AT 11,26; INK 4; PAPE
R 0;"  ";AT 12,26;"  "
610 PRINT AT y,x-1; PAPER p2; I
NK 8;"  ";AT y+1,x-1;"  "
620 LET b=1: GO SUB 1000: REM >
BALL ROUTINE <
630 GO SUB 1500: REM >SNAKE ROU
```

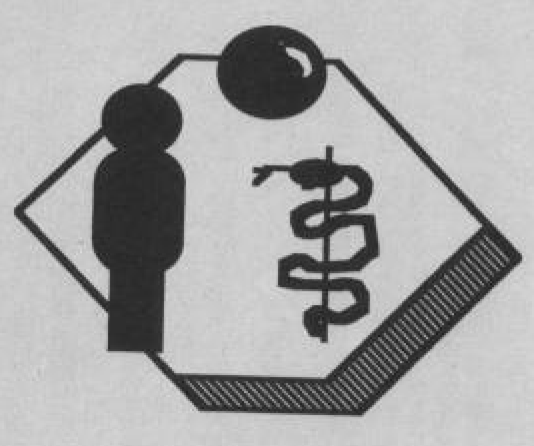
This program is available on Digi'Tape

```
TINE<
 640 IF lev<5 THEN FOR n=1 TO 20
: NEXT n
 650 IF INKEY$<>"" THEN LET a$=I
NKEY$: PRINT AT y,x-1; INK 8; PA
PER 8;"◤ ◥";AT y+1,x-1;"◣ ◢": LE
T x=x+(2 AND (a$="p" OR a$="l"))
-(2 AND (a$="q" OR a$="a")): LET
 y=y+(2 AND (a$="l" OR a$="a"))-
(2 AND (a$="p" OR a$="q"))
 655 IF x=27 AND y=11 AND p=1 TH
EN GO SUB 2000: REM >>> FLYING
SAUCER <<<
 660 IF x>y+12 OR y<14-x OR y>13
 THEN FOR f=60 TO 53 STEP -.2: B
EEP .005,f: NEXT f: GO SUB 2510:
 REM >>>DEATH<<<
 680 IF x=sx AND y=sy AND lev>=5
 THEN GO SUB 2500
 690 IF x=bx AND y=by AND b=1 TH
EN GO SUB 2500: REM >>>DEATH<<<
 700 IF ATTR (y,x)=67+8*p1 OR AT
TR (y,x)=66+8*p1 OR ATTR (y,x)=6
4+8*p1 THEN LET sc=sc+10: LET d=
d+1: BEEP .01,0: IF d=28 THEN GO
 TO 3000
 750 PRINT AT 18,9;sc;AT 20,9;le
v: PRINT AT 18,24;" ";: FOR f=1
TO l: PRINT INK 3; PAPER 0;"♠ ";
: NEXT f: PRINT PAPER 0;" "
 800 GO TO 610
1000
     REM >BALL ROUTINE<

1010 LET a=RND
1020 LET by=by+2
1025 PRINT AT by-2,bx; INK 3; PA
PER 8;" ";AT by-1,bx;" "
1030 IF a<.5 THEN LET bx=bx-2
1040 IF a>.5 THEN LET bx=bx+2
1050 IF by>13 THEN LET by=1: LET
 bx=13: LET b=0: RETURN
1060 PRINT AT by,bx; INK 0; PAPE
R 8;"▲";AT by+1,bx;"▼"
1065 BEEP .003,30+-2*by
1070 RETURN
1500 REM
       >SNAKE ROUTINE<

1501 IF lev<5 THEN RETURN
1505 LET sxa=sx: LET sya=sy
1510 LET a=RND
1520 PRINT AT sy,sx; PAPER 8; IN
K 3;" ";AT sy+1,sx;" "
1525 LET rnd=(lev-2)/10
1526 IF lev>10 THEN LET rnd=.8
1530 IF a>rnd THEN LET sy=sy-(2
AND y<=sy)+(2 AND y>sy): LET sx=
sx+(2 AND x>sx)-(2 AND x<=sx): G
O TO 1560
1540 LET a=RND: LET b=RND: LET s
ya=sya+(2 AND a>.5)-(2 AND a<=.5
)
1550 LET sxa=sxa+(2 AND b<.5)-(2
 AND b>=.5)
1555 IF sya<=13 AND sya>=1 AND s
xa<=sya+12 AND sya>=14-sxa THEN
LET sx=sxa: LET sy=sya
1560 PRINT AT sy,sx; INK 2; PAPE
R 8;"◗";AT sy+1,sx;"◘"
1570 RETURN
2000 REM
     >>> FLYING SAUCER <<<

2001 IF p<>1 THEN PRINT AT 11,26
; INK 0; PAPER 0;"   ";AT 12,26;
"   ": GO SUB 2500: RETURN
2005 PRINT AT 11,26; OVER 1;"◜▄
";AT 12,26;"▀◞"
2010 FOR f=11 TO 1 STEP -1: FOR
n=1 TO 2: PRINT PAPER 0; INK 4;A
T f,16+f; OVER 1;"▲";AT f+1,15+f
;"◣▼◢";AT f+1,15+f;"◣ ◢";AT f,15
+f;"◜▄";AT f+1,15+f;"▀◞": BEEP
 .005,60-2*f: NEXT n: NEXT f
2015 FOR f=11 TO 1 STEP -1: PRIN
T PAPER 0; INK 0;AT f,16+f;AT f,
15+f;"   ";AT f+1,15+f;"   ": BE
EP .005,60-2*f: NEXT f
2020 LET x=13: LET y=1
```

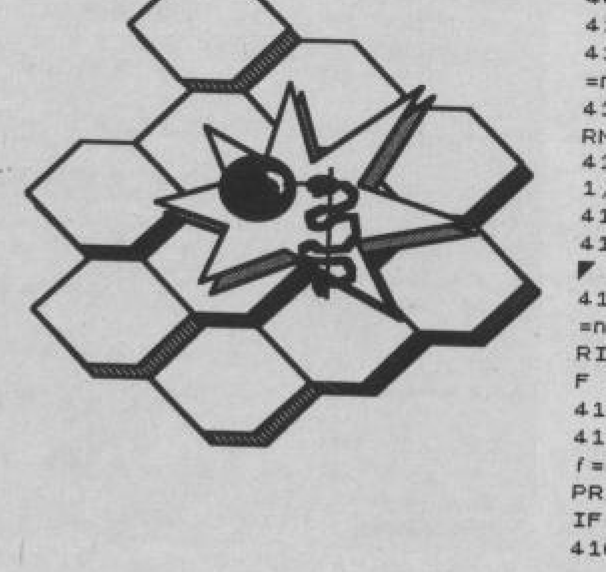


```
2030 LET p=0: RETURN
2500 REM

        >>>D E A T H<<<

2505 PRINT AT y,x; INK 3; PAPER
8;"""";AT y+1,x;"O": FOR f=1 TO
20: NEXT f
2506 PRINT AT y+1,x; INK 3; PAPE
R 8;"o": FOR f=1 TO 20: NEXT f
2507 PRINT AT y+1,x; INK 3; PAPE
R 8;"-": FOR f=1 TO 20: NEXT f
2510 FOR f=1 TO 10: BORDER 2: BE
EP .01,-10: BORDER 0: BEEP .01,-
15: NEXT f
2520 LET l=l-1: IF l=0 THEN GO T
O 3500: REM >>> FINITO <<<
2525 PRINT AT y,x-1; INK 8; PAPE
R 8;"◤ ◥";AT y+1,x-1;"◣ ◢"
2526 PRINT AT sy,sx-1; INK 8; PA
PER 8;"◤ ◥";AT sy+1,sx-1;"◣ ◢"
2527 PRINT AT by,bx-1; INK 8; PA
PER 8;"◤ ◥";AT by+1,bx-1;"◣ ◢"
2530 LET x=13: LET y=13
2540 LET sx=1: LET sy=13
2550 LET b=1: LET bx=13: LET by=
1
2570 LET p=1: PRINT AT 11,26; IN
K 4; PAPER 0;"◜▄";AT 12,26;"▀◞
"
2580 RETURN
3000 REM
      >>>FINISHED SCREEN<<<

3005 PRINT AT y,x-1; INK 8; PAPE
R p2;"◤ ◥";AT y+1,x-1;"◣ ◢"
3010 LET s=s+100: LET p5=p1: LET
 p1=p2: LET p2=p3: LET p3=p4: LE
T p4=p5
3020 FOR f=-20 TO 20: BEEP .01,f
: BEEP .01,ABS f: NEXT f
3025 IF p=1 THEN LET sc=sc+150:
PRINT AT 11,7; INK 7; PAPER 0; F
LASH 1;"SAUCER  BONUS": FOR f=1
```



```
TO 20: BEEP .01,f: BEEP .01,-f:
NEXT f
3030 LET x=13: LET y=13
3040 LET sx=1: LET sy=13
3050 LET b=1: LET bx=13: LET by=
1
3060 LET p=1
3065 LET d=1
3066 LET lev=lev+1
3067 IF lev=5 THEN LET sc=sc+500
3070 GO TO 600
3500 REM

        >>> FINISHED <<<

3510 INK 2: PAPER 0
3511 PRINT AT 5,4;"███ ███ ███
██ ███"
3512 PRINT AT 6,4;"█    █ █ █ █
█ █"
3513 PRINT AT 7,4;"█ ██ ███ █ █
█ ██ "
3514 PRINT AT 8,4;"█ █ █ █ █
█ █  "
3515 PRINT AT 9,4;"███ █ █ █
█ ███"
3520 INK 3
3521 PRINT AT 11,4;"███ █   █ █
███ ███"
3522 PRINT AT 12,4;"█ █ █   █ █
 █ █"
3523 PRINT AT 13,4;"█ █ █   █ █
██ ███"
3524 PRINT AT 14,4;"█ █ █ █ █ █
 █ █"
3525 PRINT AT 15,4;"███  █  █
█ █ █"
3600 FOR f=1 TO 100: BEEP .01,69
/f: NEXT f
3601 GO TO 25
4000 REM

        >>>TITLE<<<

4001 BORDER 0: PAPER 0: CLS
4005 FOR f=1 TO 100: PAPER 0: PL
OT INK INT (RND*3+5);RND*255,RND
*175: IF INKEY$=CHR$ 13 THEN RET
URN
4006 NEXT f
4020 INK 0: PAPER 7: BRIGHT 1
4030 FOR f=7 TO 19 STEP 2: BEEP
.005,40
4031 IF INKEY$=CHR$ 13 THEN RETU
RN
4040 PRINT AT f,37-f;"◤ ": NEXT
f
4045 INK 3
4050 FOR n=8 TO 20 STEP 4: FOR f
=n TO 20 STEP 2: BEEP .005,40
4051 IF INKEY$=CHR$ 13 THEN RETU
RN
4060 PRINT AT f,30+n-f;"◣ "
4070 NEXT f: NEXT n
4080 FOR n=11 TO 19 STEP 4: FOR
f=n TO 19 STEP 2: BEEP .005,40
4081 IF INKEY$=CHR$ 13 THEN RETU
RN
4090 PRINT AT f,30+n-f;"◤ "
4100 NEXT f: NEXT n
4110 FOR n=9 TO 19 STEP 4: FOR f
=n TO 19 STEP 2: BEEP .005,40
4111 IF INKEY$=CHR$ 13 THEN RETU
RN
4120 PRINT AT f,30+n-f;"◥";AT f+
1,30+n-f;"◢"
4130 NEXT f: NEXT n
4140 PRINT AT 21,18; PAPER 0;"◥
◤ ◥ ◤ ◥ ◤ ◥"
4150 FOR n=9 TO 21 STEP 4: FOR f
=n TO 21 STEP 2: BEEP .005,40: P
RINT AT f,31+n-f; PAPER 1;" ": I
F INKEY$=CHR$ 13 THEN RETURN
4151 NEXT f: NEXT n
4160 FOR n=10 TO 20 STEP 4: FOR
f=n TO 20 STEP 2: BEEP .005,40:
PRINT AT f,31+n-f; PAPER 1;" ":
IF INKEY$=CHR$ 13 THEN RETURN
4161 NEXT f: NEXT n
```

```
4200 PAPER 0: INK 0: PRINT AT 0,
0; OVER 1;"
```



```
4210 FOR n=0 TO 5: FOR f=n TO 5:
 PRINT AT f,0; PAPER 8; OVER 1;
INK n+1;"
        ": BEEP .02,f+n
4215 IF INKEY$=CHR$ 13 THEN RETU
RN
4220 NEXT f: NEXT n
4230 PRINT AT 8,0; INK 7; PAPER
0;"CONTROLS..."
4240 PRINT INK 5; PAPER 0;'" Q
P"'"   \/ "'"   /\ "'" A  L"
4300 RESTORE 9800: FOR f=1 TO 13
: READ a,b: BEEP a/4,b+14: IF IN
KEY$=CHR$ 13 THEN RETURN
4301 NEXT f
4500 FOR f=1 TO 100: IF INKEY$=C
HR$ 13 THEN RETURN
4501 NEXT f
4510 FOR f=7 TO 19 STEP 2: PRINT
 AT f,38-f; INK 2; PAPER 8;"";A
T f+1,38-f;"": BEEP .01,30: BEE
P .01,34: BEEP .01,37: BEEP .01,
41
4511 IF INKEY$=CHR$ 13 THEN RETU
RN
4515 IF f=19 THEN GO TO 4521
4520 PRINT AT f,38-f; INK 3; PAP
ER 8;" ";AT f+1,38-f;" ": NEXT f
4521 LET a$="SLY SIMON...": FOR
f=1 TO 12: PRINT INK 7; PAPER 0;
AT 19,4+f;a$(f): BEEP .01,-10: F
OR n=1 TO 5: NEXT n: NEXT f
4522 RESTORE 9700: FOR f=1 TO 5:
 READ a,b: BEEP a/4,b: NEXT f
4530 FOR f=9 TO 17 STEP 2: PRINT
 AT f,38-f; INK 3; PAPER 8;"";A
T f+1,37-f;"": BEEP .02,0: BE
EP .02,-.5: BEEP .02,-1: FOR n=1
 TO 20: IF INKEY$=CHR$ 13 THEN R
ETURN
4531 NEXT n
4535 IF f=17 THEN GO TO 4541
4540 PRINT AT f,38-f; INK 3; PAP
ER 8;" ";AT f+1,37-f;"  ": NEXT
 f
4541 LET a$="MEGA*BERT...": FOR
f=1 TO 12: PRINT INK 7; PAPER 0;
AT 17,6+f;a$(f): BEEP .01,-10: F
OR n=1 TO 5: NEXT n: NEXT f
4550 BEEP .2,18: PAUSE 10: BEEP
.125,14: BEEP .857,21
4560 FOR f=9 TO 17 STEP 2: PRINT
 AT f,38-f; INK 0; PAPER 8;"";A
T f+1,38-f;"": BEEP .02,50: FOR
 n=1 TO 20: IF INKEY$=CHR$ 13 TH
EN RETURN
4561 NEXT n
4565 IF f=17 THEN GO TO 4571
4570 PRINT AT f,38-f; INK 0; PAP
ER 8;" ";AT f+1,38-f;" ": NEXT f
4571 FOR f=1 TO 10: BORDER 2: BE
EP .01,-10: BORDER 0: BEEP .01,-
15: NEXT f
4575 LET a$="MASHER MARBLE...":
FOR f=1 TO 16: PRINT INK 7; PAPE
R 0;AT 17,2+f;a$(f): BEEP .01,-1
0: FOR n=1 TO 5: NEXT n: NEXT f
4600 LET a$="                  >>
>>>>>>>MEGABERT-MEGAHERO OF THE
FUTURE<<<<<<<<<<       MEGABERT
MUST CHANGE THE COLOUR OF THE DE
ADLY PYRAMID.TO DO THIS HE JUMPS
 ONTO THE VARIOUS BLOCKS OF THE
PYRAMID UNTIL ALL THE BLOCKS ARE
 THE NEW COLOUR (SHOWN BELOW THE
 PYRAMID).HE CAN REGENERATE TWIC
E ONLY,GIVING THREE LIVES ALTOGE
THER."
4610 LET A$=A$+"THERE ARE,OF COU
RSE,HAZARDS...            THE MARB
LE (MASHER BY NAME,MASHER BY NAT
URE) WILL TRAVEL DOWN THE PYRAMI
D,TURNING LEFT AND RIGHT...
          THE SNAKE,SLY SIMON,MO
VES IN ANY DIRECTION,MAKING HIM
MORE DANGEROUS.HE IS ALSO SEMI-I
NTELLIGENT.SAY NO MORE...
 "
4620 LET A$=A$+"THE FLYING SAUCE
R BY THE SIDE OF THE PYRAMID WIL
L TRANSPORT YOU TO THE TOP OF TH
E PYRAMID.A NEW SAUCER WILL APPE
AR IF YOU ARE SQUASHED OR EATEN
OR IF YOU FINISH A PYRAMID...
          BERT WILL ONLY TRAVE
L DIAGONALLY...             BONUS
FOR UNUSED SAUCERS <<<<<<<<<<"
4624 LET a$=a$+">MEGABERT<
   PROGRAMMER...C.GRESTY          G
RAPHICS...C.GRESTY        REJECTED
 BOUNCING BANANA IDEA...C.GRESTY
       ORIGINAL PYRAMIDS...EGYPTI
ANS        ADAPTED PYRAMID...C.GRE
STY        BRAIN BEHIND THE STUPID
 IDEA FOR THESE CREDITS...C.GRES
TY'S       © C.GRESTY MCMLXXXV
           "

4625 LET a$=a$+"
 "
4626 LET a$=a$+">MEGABERT<
   PROGRAMMER...C.GRESTY          G
RAPHICS...C.GRESTY        REJECTED
 BOUNCING BANANA IDEA...C.GRESTY
       ORIGINAL PYRAMIDS...EGYPTI
ANS        ADAPTED PYRAMID...C.GRE
STY        BRAIN BEHIND THE STUPID
 IDEA FOR THESE CREDITS...C.GRES
TY'S       © C.GRESTY MCMLXXXV

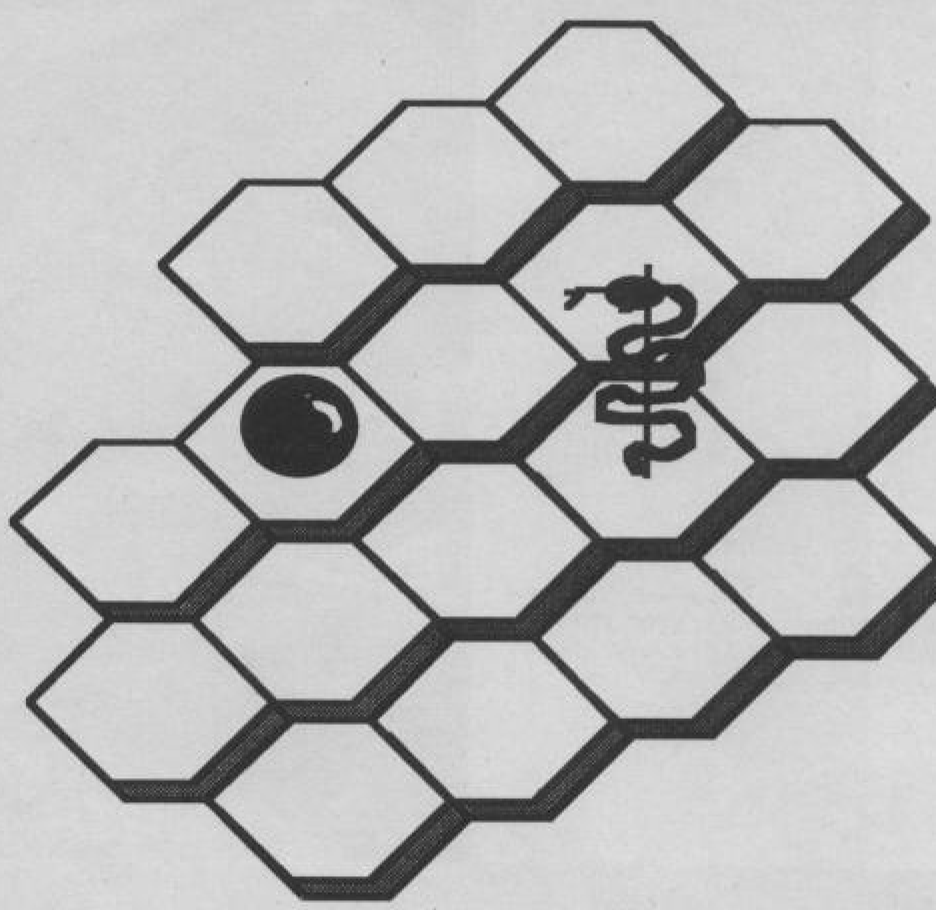
4630 PRINT #1; INK 7; PAPER 0;">
>>PRESS ENTER TO START GAME<<<<"
4640 FOR F=1 TO 150: IF INKEY$=C
HR$ 13 THEN RETURN
4650 NEXT f
4660 FOR f=1 TO 1139: PRINT AT 1
1,7; INK 6; PAPER 0;a$(f TO f+16)
4665 BEEP .006,0
4670 FOR n=1 TO 3: IF INKEY$=CHR
$ 13 THEN RETURN
4671 NEXT n
4680 NEXT f
4683 PRINT AT 11,8; PAPER 0;"
           "
4690 GO TO 4640
9000 DATA 255,254,252,248,240,22
4,192,128
9010 DATA 255,127,63,31,15,7,3,1
9020 DATA 128,192,224,240,248,25
2,254,255
9030 DATA 1,3,7,15,31,63,127,255
9040 DATA 0,0,0,0,24,126,201,219
9050 DATA 129,193,224,240,248,25
2,254,255
9060 DATA 252,191,159,196,127,60
,72,108
9070 DATA 97,147,151,111,31,63,1
27,255
9080 DATA 124,222,247,3,59,123,1
02,126
9090 DATA 61,3,59,123,227,231,12
6,61
9100 DATA 6,14,28,44,44,88,88,88
9110 DATA 92,108,110,118,58,30,6
,0
9120 DATA 0,0,0,0,60,126-32,159,
191,255,255,126,60,0,0,0,0
9140 DATA 0,7,24,32,64,64,128,13
5
9150 DATA 126,159,31,15,15,15,15
,143
9160 DATA 0,224,248,252,254,254,
253,249
9170 DATA 159,191,127,127,63,31,
7,0
9180 DATA 241,240,240,240,240,24
8,249,126
9190 DATA 225,1,2,2,4,24,224,0
9200 DATA 28,50,139,255,143,62,3
6,108
9500 DATA 3,13,4,13,5,11,5,15,6,
11,6,15,7,9,7,13,7,17,8,9,8,13,8
,17
9510 DATA 9,7,9,11,9,15,9,19
9520 DATA 10,7,10,11,10,15,10,19
9530 DATA 11,5,11,9,11,13,11,17,
11,21
9540 DATA 12,5,12,9,12,13,12,17,
12,21
9550 DATA 13,3,13,7,13,11,13,15,
13,19,13,23
9560 DATA 14,3,14,7,14,11,14,15,
14,19,14,23
9570 DATA 15,1,15,5,15,9,15,13,1
5,17,15,21,15,25
9700 REM

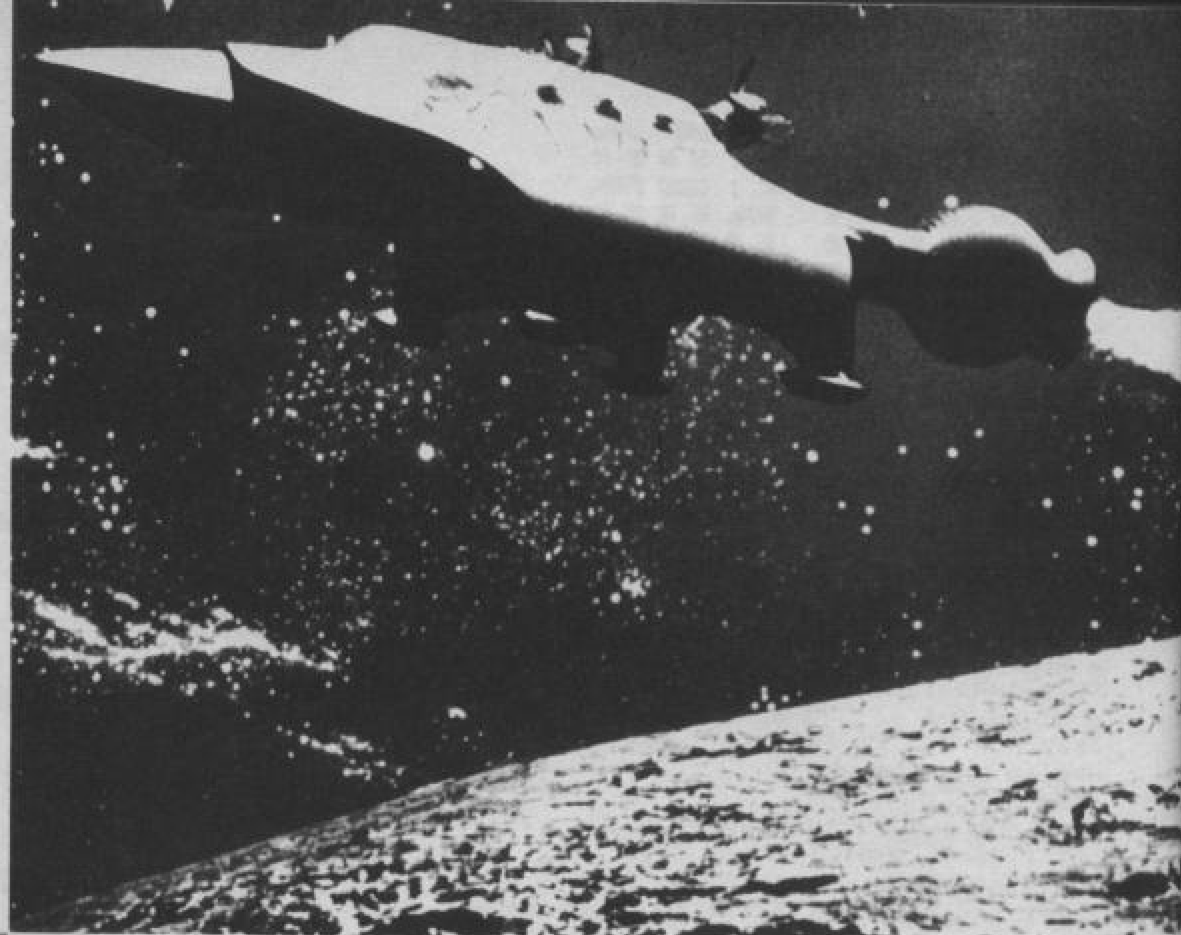
   >>> SNAKE MUSIC DATA <<<

9710 DATA 3,-10,1,-8,2,-7,2,-10,
4,-3
9800 REM

         >>> DITTY <<<

9810 DATA 1,1,1,4,2,4,1,2,1,6,2,
6,1,8,1,8,1,6,1,8,1,9,1,11,1,13
```





PROGRAM POWER

Have you written a program recently? And how many people have played it? Ten? Five? Two? What, just your mum? Isn't it about time you sent it in to YS? Here we can offer you not just tens, not even hundreds but — just for you, John, once in a lifetime offer, look I'm doing meself out of pocket — thousands and thousands of potential players! And what's more we'll pay you very well. After all, how much did your mum last give you for writing a program?

So, fill in the form below and send it with your megaprogram on cassette to Gavin Monk, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

Name ....

Address ....

...

.... Postcode ....,

Telephone Number ....

My program's called ....
and it's completely original — 'cos if it ain't I daren't think what'd happen to me...

Signed ....


od.
start
entrance
start
Teleport point
start
nick davies

HACKING AWAY

Fancy a bit of a hack with *Chris Wood*? Well, here's your chance. Get cracking!

Hi there all you hackers. I'm back with your POKEs and my jokes, so stop groaning. I'll start with an apology. Sorry, I assumed that all YS readers were more intelligent than other beings. Why? 'Cos they read YS, of course. And in making that assumption I gave you rather short instructions for the Fairlight program. So for all those who're still having problems here goes again.

Type in and save the appropriate program depending on whether you've got a Kempston joystick option or not. Put your fully rewound tape in the cassette recorder, run the program and start the tape. If you're using the second program (YS 1) wind the tape past the piracy message. You won't get the loading screen but never fear Fairlight will eventually load with all the added features you left in the data statements at the end of the program.

Hope that helps **M Weston** *from Devon,* **Chris Baker** *of Peterborough,* **Major J Beardwell** *from Somerset,* **M Tuck** *from Nottingham (any relation to F Tuck of Sherwood Forest?) and* **M Larkin** *from Canterbury who all had problems. And while we're on the subject of Fairlight, if you've got a Mirage microdriver try this little bit of code:*

POKE 65460, x (where x is the room start you want.)

You may have noticed, if you had your trainspotter glasses on, that last month the final POKE for Nightshade didn't have a number after it. Oops sorry! The complete POKE should've read:

POKE 52900,0:POKE 52901,0: POKE 52902,0

I'm gonna have to get used to all this grovelling. **Haken Strom** *from Sweden says we messed up his Jumping Jack POKEs — sorry Haken! The POKEs should be:*

POKE 26034,0
POKE 26035,91
RANDOMISE USR 26030

Maybe our coal-driven typesetting machine should be put out to pasture. (Maybe you should be put out to pasture! Ed*)*

GHOSTBUSTERS

This isn't so much of a hack but more of an undiscovered feature. When you're asked which car you want select 0 and see what happens. **Philip Sym** *from Scotland didn't actually let on what happens then or which version of the game he has but whatever it is, it has to be better than playing the game.*

MANIC MINER

Here's a well-useful tip from **Owen Dunn** *of Northants. He's found a connection between POKEs in the Bug Byte version of Manic Miner and Software Projects' version. Nearly all the addresses for the POKEs are six bytes higher in Software P's version — it therefore follows that if you add or subtract six from the POKEs for either version it should work on the other one. Neat eh? Owen assures me that this works for nearly all the POKEs on both versions. I'd like to know just what 'nearly' means — maybe you'd better write and tell me.*

GYROSCOPE

Yup, as if last month's POKE's aren't enough, **J Gavin** *from St Helens has provided:*

POKE 59149,0

to jam a screwdriver in the clock mechanism and stick it at 59 seconds.

B Wynd *wants to know how to get to look at the code of certain protection systems. Well obviously I can't tell you exactly what to do. But you'll need to use* **Chris Pile***'s program from the last issue to demerge the Basic so you can at least look at the code, though with most of the systems in use nowadays your troubles are only just starting. And before all you puritanical hackers out there start screaming it would only take about two minutes to construct a false header and making the Basic merge proof is not really any protection. Chris's program does at least make things easier.*

PYJAMARAMA

Okay here they are at last, the correct POKES for Pyjamarama! *I knew I could rely on you finding out what was wrong. There are two versions of this game — the latter one has a demo mode, and plays a different tune so you need different routines.*

For the first version you need to use the program that was in issue 14. Yep, I know it crashes, but **David Burns** *from Midlothian says that you'll also need to add PCKE 48680,50 to the end of it. Then do RANDOMIZE USR 63524. If you've got the version with a demo* **T Saggo** *from Birmingham has provided you with this little proggypoo* (Ugh! Ed*):*

```
10 FOR I=23297 TO 23376
20 READ A:POKE I,A:NEXT I
40 PRINT "PLAY TAPE"
50 PRINT AT 10,10;:RANDOM
IZE USR 23297
60 DATA 175,55,221,33,96,
234,17,17,0,205,86,5,48,2
42,17,97,234,1,10,0,205,6
0,32,62,255,55,221,33,203
,92,17,216,1,205,86,5,48,
241,243,49,0,0,33,166,93,
17,22,128,1,231,0,237,176
,33,63,91,34,61,128,195,2
2,128,33,72,91,34,229,190
,195,36,248

170 DATA 62,X,50,97,171,1
95,0,130:REM REPLACE X
WITH NUMBER OF LIVES.

170 DATA 175,50,18,190,19
5,0,130,0:REM OR USE THIS
FOR INFINITE LIVES
```

As you can see there are two line 170's — one is for x number of lives and the other is for plain ol' infinite lives. The program doesn't have a chesksum so I suggest you save it before you run it — you wouldn't want to type it all in again would you? And talking of checksums I'd like to make a little request (The Sound Of Music? Ed). Please provide checksum if poss — you don't need anything flash, just a total of all the bytes to make it easier for people to spot their typing mistakes.

BOOTY

Apparently the Booty POKE in issue 19 doesn't work properly — well, that's what **David Burns** *says anyway. Help is here in the form of* **Chris Bell** *from Australia who sent in a working version:*

```
10 CLEAR 26000:LOAD ""
CODE: LOAD "" CODE 26000:
RANDOMIZE USR 26000
20 POKE 58294,0:RANDOMIZE
USR 52500
```

JASON'S GEM

I've never heard of this game before but I'm told it's by Mastertronic. **Ian Battock** *from Kent has sent in this little tip. Load the game as normal and then press the keys W, A and S at the same time and you should hear a BEEP and find you have infinite lives.*

MONKEY BUSINESS

Now I've never heard of this either but Paul Whitby *from Hull has, so if you have too here's a small tip for infinite lives:*

Load the first part of the program and when you get the message 'Program Loading' stop the tape and press Break. List line 2000 and change 'LET G=0' to the number of lives you want then type 'GOTO 800' and restart the tape.

BRUCE LEE

Here's a megahack for Bruce Lee *sent in by Lady Penelope (no not of Thunderbirds fame but* **Penelope D'gaulle-Bennett** *from Herne Bay, Kent actually) that'll give you infinite lives. It operates in the same way as my Alien 8 program — well, they do say imitation is the sincerest form of flattery.*

```
   5 REM BRUCE LEE HACK I
NFINITE LIVES
  10 LET tot=0: FOR n=500
00 TO 50084: READ a: LET
tot=tot+a: POKE n,a: NEXT
 n
  20 IF tot<>10376 THEN
PRINT AT 10,10;"ERROR IN
DATA": STOP
  30 PRINT AT 10,10;"INSE
RT TAPE": STOP : RANDOMIZ
E USR 50000
 100 DATA 62,255,55,17,14
1,5,221,33
 101 DATA 203,92,205,86,5
,48,241,33
 102 DATA 86,176,34,233,9
6,58,202,96
 103 DATA 238,194,50,202,
96,33,147,195
 104 DATA 17,28,238,1,32,
0,237,176
 105 DATA 243,237,94,33,4
1,236,229,235
 106 DATA 33,137,97,229,5
1,51,1,242
 107 DATA 1,33,253,94,62,
200,237,79
 108 DATA 195,137,97,62,1
95,50,80,202
 109 DATA 62,96,50,81,202
,62,201,50
 110 DATA 200,218,195,0,2
26
```

After you type it in RUN it, and if you get an error message check your data. If you get 'Insert tape' and 'Stop', remove the Stop statement in line 30 and then Save the program (you wouldn't want to type it in twice would you?) When you've done that put your Bruce Lee tape in, play it, and enter 'GOTO 30.' Penelope warns that she thinks there are a few different versions of the game and so it may not work with all of them. Let me know if it doesn't and better still send in any alternative POKEs.

THREE WEEKS IN PARADISE

Wow I'm even getting hacks for brand new games, so keep it up! This tip's from **Paul Coast** ***of London. Wait until Wally has been killed for the first time and then press Symbol Shift, D and P simultaneously while Wally is sitting on the floor. You'll then get a fanfare and infinite lives are set up.***

Well, that's it for now, I must say the POKEs have been a bit light on the ground this month but I hope you're all gonna get down to some concerted hacking from now on.

Send your megahacks to Chris Wood, Hacking Away, Your Sinclair, 14 Rathbone Place, London W1P 1DE.

Put pen to paper and write to Andrew Pennell, Microdrivin', Your Sinclair, 14 Rathbone Place, London W1P 1DE.

MICRODRIVIN'

Moping over your microdrive? Cheer up! All your problems are solved with *Andy Pennell's* merry Microdrivin' column.

Hello you microdrivin' maniacs, I'm back again. To start with I'd like to thank all of you who are still writing in claiming you have a new Interface 1 ROM thanks to my numerous cock-ups. But please no more letters about the new ROMs. And now we've sorted that out on with your microdrive moans.

I would like to get a whole catalogue of a microdrive cartridge in a string. I know there is a very complicated method where you make a file, write it to microdrive then read it back. But is there an easier and faster way?
PWM van Dyke, Holland

As you point out, one way of doing it is to open a write file of some form such as, OPEN #4; "M"; 1; "dir", then CAT #4,1: CLOSE #4, then open it and read the files. Although it works, it's very slow. An easier way is to CAT directly into a string. And it just so happens there's a routine to do this in a certain microdrive book, *Mastering Your ZX Microdrive*, by yours truly and published by Sunshine Books.

I bought an Interface 1 in Scotland but a power surge caused it to crash. Can you tell me where I can get it repaired? I live in Ireland by the way.
Kieran Bell, Dublin

Two companies that advertise Interface 1 repairs are TV Services of Cambridge on (0223) 31171 and PEAK Electronics on (0429) 72739. I can't personally recommend either as I've never had anything repaired, so I suggest you give them a ring. There shouldn't be a problem 'cos you live in Ireland.

I'm in a bit of a quandary. Am I supposed to clean and demagnetise my microdrive heads in the same way as our now redundant tape recorders? I've got a Tandy four colour printer and would like to get in touch with anyone else out there who uses one in conjunction with the Interface 1.
Tim Parsons, Harlington

Ummm, errr, oops. Sorry, to be totally frank I don't know. Sinclair doesn't actually say you should demagnetise and clean it but then that doesn't actually mean a lot. If you're having problems have a go at cleaning the heads but if everything is working leave well along! If anyone out there does have a Tandy four colour printer and would like to get in touch with Tim drop him a line c/o *YS*.

I've got a cartridge with a CAT of 114K, is this normal? I'm afraid my Speccy might be sick.
Dave Lamb, Warley

Well, cartridge capacity depends on two things. First, the length of the tape inside the case determines the maximum number of sectors. The software can handle 256 sectors or 128K. Secondly, the quality of the tape is very important. The more faulty sections of the tape that fail the Format test the more the capacity is reduced. I must admit 114 is rather a lot and it's possible that the tape has stretched. If that's the case it won't be reliable once in regular use.

Both my Interface 1 and microdrive were faulty so I returned them to Sinclair. I received replacements within ten days and I'd just like to say how pleased I am with its after sales service.
Malcolm Astle, Derby

I'm amazed. Well, I must say it's nice to hear from a satisfied customer for a change. Sinclair's after sales service has definitely improved over the last couple of years.

Here's a program to simplify the use of ZX microdrive commands. The code'll produce a preformed line LOAD *"m";1;" (LCURSOR)" in the editing area by entering the LET command.

```
  10 REM Auto LOAD *"m";1
;"" insert by D.A.H
  15 CLEAR 65199: LET che
cksum=0
  20 FOR a=65200 TO 65317
  30 READ b
  40 LET checksum=checksu
m+b
  60 POKE a,b: NEXT a
  70 IF checksum<>11022 T
HEN  PRINT  FLASH 1;"ERRO
R": STOP
  80 POKE 23735,176: POKE
 23736,254
  90 PRINT "Now to test e
nter LET command   SAVE "
"""CODE 65200,200"
 100 DATA 215,24,0,254,24
1,40,7,0,0,0,0,195,240,1,
215,32,0,205,183,5,215,20
0,254,201,1,182,92,62,0,2
,0,0,17,10,0,33,208,7,58,
11,92,111,205,181,3,42,17
8,92,54,62,43,249,43,43,3
4,61,92,205,176,22,62,239
,205,129,15,62,42,205,129
,15,62,34,205,129,15,62,1
09,205,129,15,62,34,205,1
29,15,62,59,205,129,15,62
,49,205,129,15,62,59,205,
129,15,62,34,205,129,15,6
2,34,205,129,15,62,8,205,
146,15,195,172,18
```

Before entering the program you must've paged the Interface 1 at least once to create the system variables. Once the code is saved on microdrive the paging will have already been done.

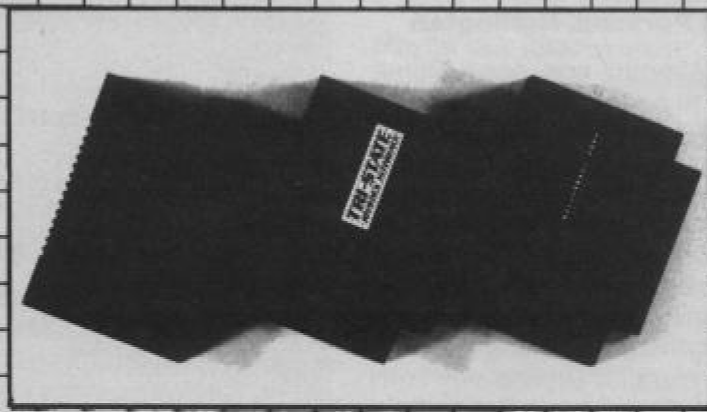
To modify these commands do the following: to SAVE, POKE 65261,248, to MERGE, POKE 65261,213 and to ERASE POKE 65261,210. For ERASE POKE 65265 to 65269 with 0. Once the code has been saved to microdrive CLEAR 65199, LOAD * "m";1; "name" CODE and POKE 23735,176: POKE 23736,254.

Now simply enter LET (K mode — L and ENTER) and the line appears ready for the file name to be entered.
David Hawkins, Plymouth

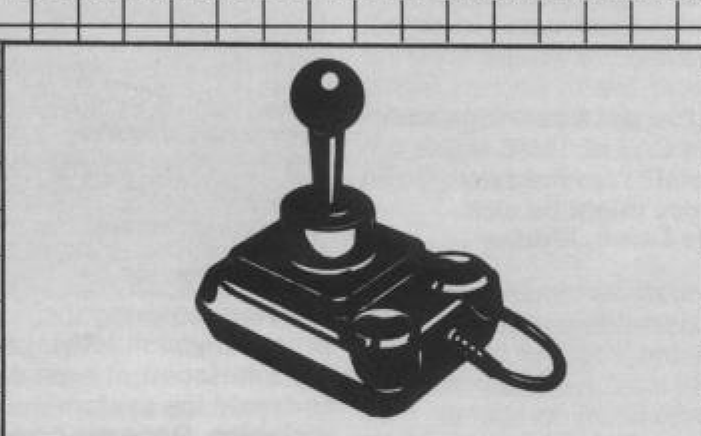
Thanks David. It's great to get a few tips from the readers. I mean I can't know everything.

And finally I'm going to make this column even more appealing, I know it's nearly impossible but I'm gonna try. I shall be including information about the other mass-storage devices for the Spectrum. I'll start off with the Wafadrive and Opus Discovery disk drive but I'll need your help too, so keep those letters coming. See you next month.

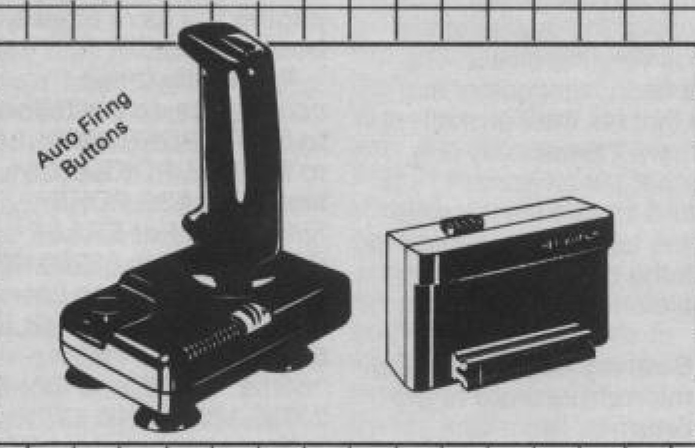
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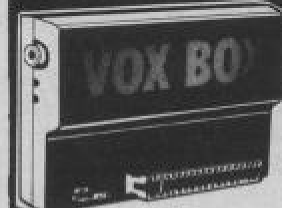
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And that's no easy task — Mikie more often ends up in a ruck with the head than in the arms of his beloved. But he battles on, for true love runs deep (Yeeerrrccckkk!!!!) and 'cos his girlfriend can punch harder than he can.

Imagine has come up with a few lovely prizes for all you love birds and all because *Your Sinclair* thought a Valentine's compo would be just up your street. The lucky winner will receive a slap up, romantic candlelit dinner for two at McDona..,er sorry... your nearest five star hotel (and if you live in London that's the Ritz!). And the extra space at the table is obviously reserved for someone special — oh, okay, you can take your Mum if you must!

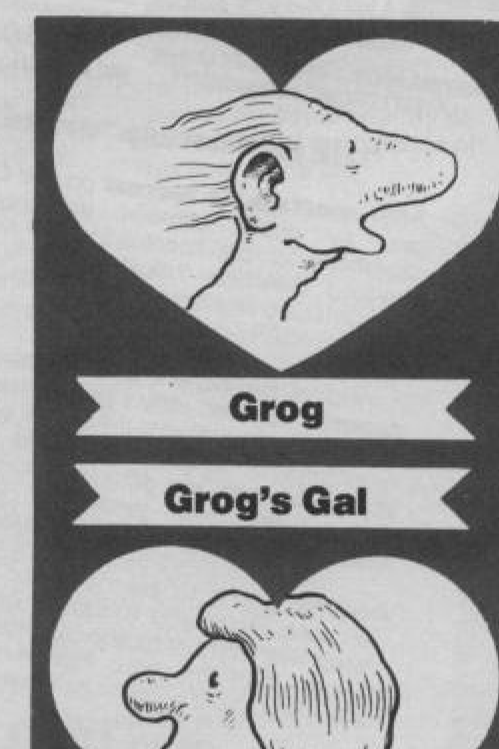
Stop throwing up into your frosties — if you think that's slushy you haven't heard what you've gotta do yet!

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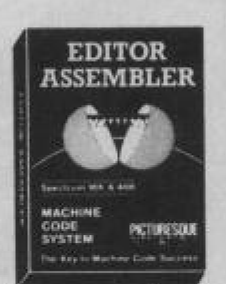
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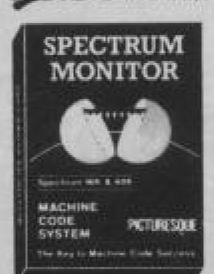
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HEART TO HARTNELL

Tim Hartnell's the *Barbara Cartland* of computer books. He must have written far more than anybody else! Now he's joined the YS team to pass on some of his experience to you. He kicks off this month by playing Boole!

It's perhaps unwise to probe too deeply into how turn of the century clergymen amused themselves late at night in the privacy of their attics. But one such gentleman, working almost a century before the first computer worthy of the name was built, single-handedly devised the entire theory and method that present-day computers use to make decisions.

And this extraordinary achievement isn't just of historical interest. You can use what our clergyman, the Reverend George Boole, developed to compress parts of your Spectrum programs in some pretty flash ways. They can also make your programs look nice and impenetrable so those who wouldn't know a Boolean Variable if it kicked them in their booleans will look at your complex programs with open admiration and mouths!

Boolean Variables are variables that can only hold a value of one or zero and that value tells you whether a statement is true or false. Sounds complex? Hang around and all will become clear.

TRUE OR FALSE?

Let's start by looking at how your Speccy knows whether something's true or false. Believe it or not, it has its own internal Booleans. Test it out by typing in a true statement. Say you enter PRINT (8=8) you'll see a 1 appear at the top of the screen. PRINT ("this"="this") will produce the same result.

This suggests that if a statement is true, the Spectrum holds this information as a "1". Try it with a few falsies such as, PRINT (7=9) or PRINT ("this"="that"). This time you'll get a "0" printed on the screen. Now you can see that the Spectrum holds the condition "false" as a zero.

Try these true/false tests with various inputs, to see if it holds true in all conditions. You don't have to just go for direct comparisons like the ones I've given above. Try things like PRINT (9=3*3) or PRINT ("a"=CHR$ 97) to see what happens.

Now, all that's fair enough. But how do we make practical use of it? In their infinite, Metalabic wisdom, the lads who invented Spectrum Basic decided that an ON . . . GO TO or an ON . . . GO SUB statement was an unnecessary luxury. An ON . . . GO TO line is of the type ON X GO TO 200,330, 490 which sends action to line 200 if X equals 1; to line 330 if X equals 2; and to 490 if X equals 3.

It's obvious you can get round the lack of this command on the Speccy with a clumsy set of IF X=1 THEN GO TO 200, IF X=2 THEN GO TO 330 lines, but this won't wow anyone. Have a go at this simple program:

```
  10 INPUT A
  20 GO TO 99*(A=1)+260*(
A=2)
  99 PRINT "99": STOP
 260 PRINT "260": STOP
```

When you run this, enter either 1 or 2. If you enter 1, the Spectrum will come to line 20, evaluate the (A=1) as 'true' and the (A=2) as 'false' and GO TO line 99. If you enter 2, it'll do the opposite. But how does this 'true' or 'false' decision send the computer to the right line? It's simply because, as I pointed out earlier, if you enter 1 when you run the program, 'true' equals 1 (so the first part of line 20 becomes "GO TO 99*1") and 'false' equals 0 (so the second part of the line becomes "+ 260*0") with the result that the Spectrum goes to 99+260. The opposite occurs, of course, if you enter a 2 when you run the program.

MICRO MIMICRY

You can even make use of the Boolean true/false condition to imitate a command found on few Basic-using microcomputers — the QL has it, and perhaps some others as well but I've not come across them. It's the command that in the language C is SWITCH/CASE and in QL SuperBasic is SELect ON. With these commands, you don't simply have to live with values 1, 2, 3 and so on to trigger a GO TO or GO SUB. Instead, you can choose any values you like, and they don't even have to be in order. You can see this in action with this brief program:

```
  10 INPUT A
  20 GO TO 50*(A=9)+150*(
A=-6.5)+50
  30 STOP
  50 PRINT "TRY AGAIN": G
O TO 10
 100 PRINT "100": STOP
 200 PRINT "200": STOP
```

With this program, the computer goes to line 100 if you enter 9 in line 10, and to line 200 if you enter −6.5. Any other value causes the Spectrum to go to line 50 where it prints out "TRY AGAIN" and then sends you back to 10 for another input. The C language SWITCH/CASE command has an action called 'Default' that it processes on any input for which it does not have a specific reply. In SuperBasic on the QL 'Remainder' is the equivalent of 'Default'. In our second program, the +50 at the end of the line acts as the default/remainder, being the action the computer is told to undertake if the first two conditions tested — (A=9) and (A=6.5) — are false and therefore given a value of zero.

Now if you make any startling discoveries while you're playing around with Boolean Variables, let me know. You can get in touch with me here at *Your Sinclair*, 14 Rathbone Place, London W1P 1DE. Next month I'll be looking at random numbers in depth but after that it's up to you. If there's any subject you haven't got the hang of yet, let me know and I'll do my best to throw light on the inner workings — and chuck in a few spanners as well!

Tim Hartnell first discovered computers when he bought a ZX80. He started the very first ZX Users' Club, and has written more books than he cares to remember on the ZX80, ZX81, Spectrum and QL. He now spends part of each year in his home country of Australia and the balance of his time in the UK.

PLAYING BOOLE

Okay, so we can use Boolean Variables to clean up a whole mess of IF/THEN/GO TO or IF/THEN GO SUB lines. But is that all? Course not. As you'll discover when you start experimenting with the Spectrum's internal true/false Boolean Variables, many parts of your program can be cleaned up. For example:

```
  10 INPUT "DO YOU WANT INSTRUCTIONS?";A$
  20 GO TO 8970*((A$(1)="Y" OR A$(1)="y")) + 30
  30 .... rest of program ...
9000 ....start of instructions....
```

Here, as with the above examples, you can cater for many more possible inputs.

As well as GO TO and GO SUB you can use Boolean Variables to ensure, for example, that when one of your programs asks for the player's name, it can change your name into, say, 'Superstar' and anybody else's name into something insulting — I'm sure you can come up with something suitable!

To show you how flexible it can be, you could even use Boolean Variables to change the colours, and shapes, of playing pieces in a board game. And you can do it with just one line, as line 20 shows below:

```
  10 LET a=INT (RND*3+1)
  20 LET a$=CHR$ 16 + CHR$ a +
  CHR$(79*(a=1)+88*(a=2)+143*(a=3))
  30 PRINT a$;
  40 GO TO 10
```

When you run this, you'll see that the Spectrum's magic Booleans have produced a string of blue O's, red X's and magenta solid blobs. How many lines would it have taken without the assistance of the good Reverend Boole?

V SIGNS...

V-Day will soon be here. The day the reptiles arrive — but only in Ocean's new megagame. *Rachael Smith* risks life and limb to pay the programmers a visit...

You are Donovan! No, not the wimpy sixties singer, but Michael Donovan, the only person who can save the earth in this free adaptation of the TV series, *V*. The mission is simple — locate and destroy the enemy ship by blowing up its central computer and reactor. What makes it less easy is the size of the ship. It's a maze of corridors and blocked passages, sixteen screens across, eight screens down and five layers deep — a grand total of 640 screens that would take you several hours to cross. And that's without the unwelcome attentions of the lizards and their robot guards.

But the aliens aren't just going to sit there and let you destroy them. You'll need your trusty laser and that's going to need recharging every so often from the power points you'll find scattered around. Fine — you're happily blasting lizards and maybe even taking pot-shots at robots, (though they may be invulnerable in the final version,) and it's all getting you a nice high score. But unless your luck's really in it won't find those two crucial areas. And that's where a bit of strategy comes in.

The first thing that you'll realise about the lizards is that they don't talka da lingo. This means that before you can use your communicator device, which appears at the bottom of the screen and is tapped directly into the ship's Communiputer (dontcha just lurve that jargon?), you'll need to use a bit of brainpower. Once you get the hang of it though you'll be able to use it for things like opening security doors which requires a bit of pattern-matching brainteasing.

Your travels will also bring you into contact with several laboratories where you can find parts of the formula for the dreaded Red Dust. As well as making a mess of white carpets, this slows the aliens down — somewhat terminally! So you may choose to complete the formula and then find the air purification plant. Here you can tap into the ship's glorified ZX81 and get it to manufacture the deadly powder and put it into the air conditioning. Pretty dumb of it, huh? Well, yes and no, because as its fleshy masters die it will step up robot activity. It all depends who you like blasting best.

If you get tired of the endless corridors, the outer levels have airlocks into space. Out there you blast yourself around with an oxygen cylinder, remembering that a push to the left will send you right! There are two major housings on the outside of the ship, the water inlet and communications centre, and while their destruction isn't crucial it'll certainly rack up the old score.

Right, you've located your targets and set the bombs. Even that's no easy task because it looks like you'll have to synchronise the two explosions exactly. Failure means that if the reactor goes first the computer will still be able to defend itself. And without the computer the reactor will run wild. Then it's back to the docking bay where your craft is ready and waiting and all ashore that's going ashore — though it's hoped that the finale will hold a nasty surprise to wipe the grin off your face!

This is just the barest outline of the gameplay. When I saw the game it was still far from finished. Other details may include the computer switching off the lights in a certain section. Then you'll have to rely on a torch that'll show the way ahead but only just enough behind you to let you see what hits you! Donovan is extremely well animated and if his jump and roll and some of the plot details remind you of *Impossible Mission*, well the same people were responsible for the Spectrum version. But *V* has added to that game's success with its combination of blasting for high scores and strategy to complete the task — and it's not only vast but different for every game!

The Story So Far...



They came from the skies and at first the Visitors seemed sociable enough. No-one minded having them as intergalactic neighbours. 'The Visitors Are Our Friends' was the motto as their huge ships docked in the skies above earth's major cities. They began to integrate with the humans, working side by side on scientific projects.

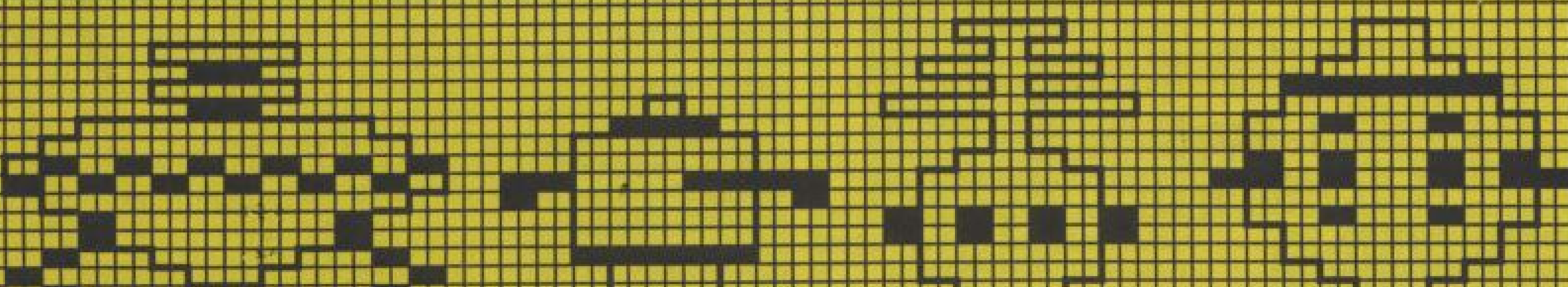
Then came the revelation that beneath their human appearance lay something much more sinister. The Visitors had spoken with forked tongues — they were lizards!

*Then earth's population turned against them. And it wasn't just because a dinner appointment meant eating live rats. The Visitors were cold-blooded killers. Well, they would be — they were reptiles. And when they said they wanted to siphon off our water supply they weren't just taking the p*ss!*

Using the superior science that all alien enemies seem to possess, the scaly fiends declared a state of martial law. But resistance grew. Again and again the propaganda posters were defaced with a chevron of red paint. V no longer stood for Visitors — it meant Victory.

The earth had many heroes, but none greater than Michael Donovan, who pitted himself against the amphibian who'd been the Visitors' ambassador, Diana. Here was a man who would dare enter the visitors' ships. And so earth struck back . . .

AN 'ANDFUL OF ANDROIDS



Worker
The robots are an addition from the TV series but they play an important part as they scuttle around the corridors. The Worker here may just be earning an honest crust but he'll fire at you as soon as he sees you.

Cleaner
Another low grade robot, Cleaners hover through the air, hoovering the floors. This means that your only way round them is to dive and roll underneath. Just be careful that you're not mistaken for some dust and fried with a laser!

Sensor
Now they get really nasty. Meet one of these and he'll inform the main computer of your whereabouts. Soon you'll find other robots are just crowding to meet you but it's the sort of social success you'd rather avoid.

Security
First among your fan club will be these deadly tin cans who'll think nothing of blowing you away. But when a lizard passes a robot it freezes it for a few seconds. So, if you can shoot the lizard you can slip by the robot unharmed.

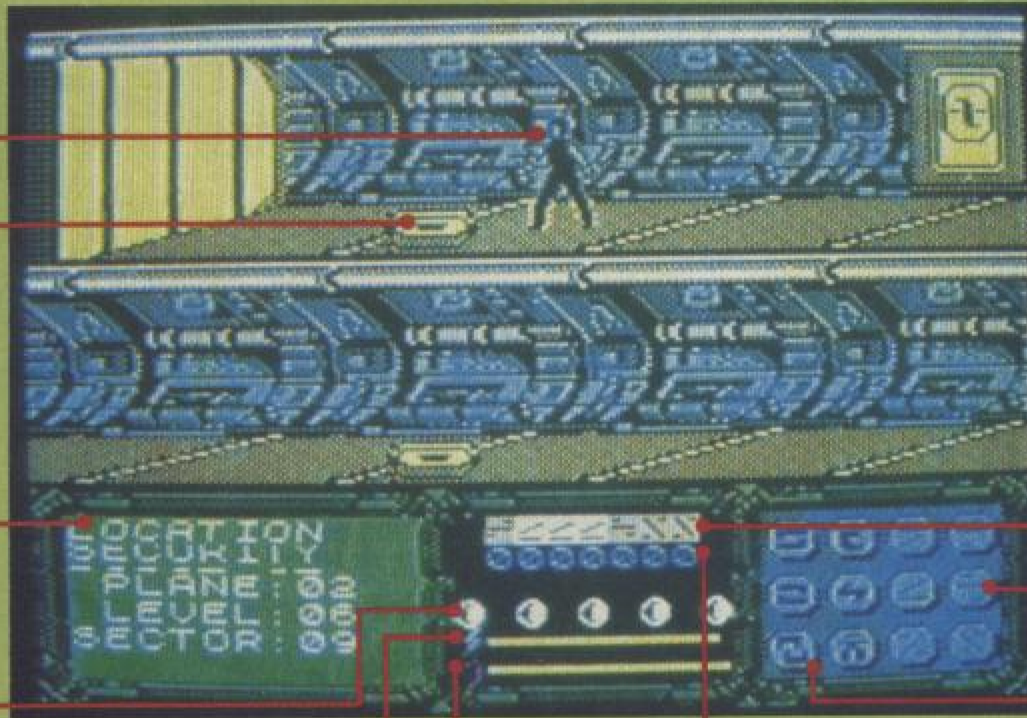
V — THE GAME THAT MAKES YOUR BLOOD RUN COLD

There was still a lot of work to be done on *V*, when we infiltrated the alien ship to bring back these photographs. At the top Michael Donovan finds himself trapped in a corridor, while below him the communicator provides status information. You'll never actually see a screen like the second one in the game — it shows a selection of corridors and features that you'll meet in your search for the two targets. Get a good look now — when you're being chased by the robots and half a dozen accompanying lizards they won't give you time to admire the scenery — no lounge lizards, these!

Michael Donovan, perfect in every tiny pixel, runs and rolls most athletically, all via the joystick. Left and right are obvious but up makes him jump and somersault, with down handing over control to the status panel.

Uh-oh, a dead end, Donovan. Luckily the answer lies here — no, it's not a discarded plate of spaghetti. It's a lift to beam him down to the corridor below with just one jab on the joystick.

Here's the message area of the Communiputer. Normally a constant succession of broadcasts will scroll through as the lizards discuss the time of day. But here Donovan has managed to get information on his whereabouts.



While we're talking about numbers, here's the communicator's very own calculator. If you solve the mystery of the Visitors' maths you can use it to feed them wrong information about your whereabouts, heh heh heh!

At the third stroke, the time is.... what? No big hands and little hands for lizards as they have six digits on their's and work to a base six number system. Still, the brainy among you will be able to use this clock to work out their figures.

Every good hero has almost as many lives as a cat. While at least one of these is flashing Donovan's safe.

Here's the laser power supply bar. At first you've got a lot — must be using those nice batteries with the gold tops — but after a few encounters with the aliens you'll be wanting to recharge.

Your oxygen isn't so important inside, but once you step through an airlock you'll need those blasts of fresh air to float around. Keep an eye on this unless you want to get marooned!

If you find a transporter lift like this, without an accompanying one below it, it means that movement is up. Take it and the screen will flip to show the corridor where you'll arrive.

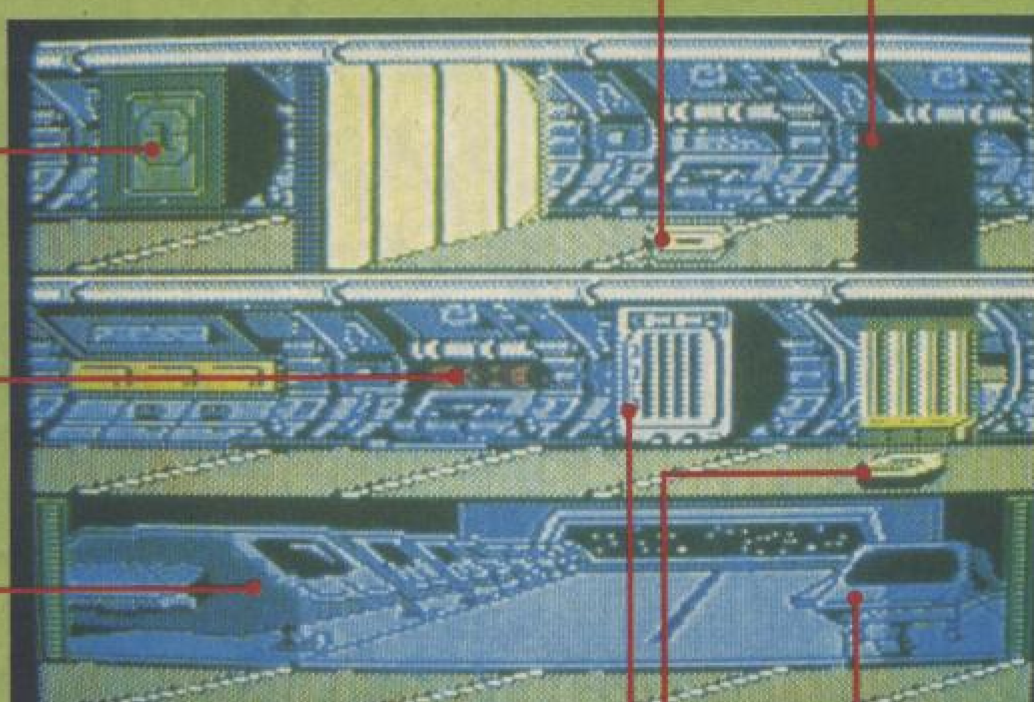
Your score. This isn't in lizard digits — which is just as well considering the confusion it would cause when typesetting high scores.

Another cross level door, but this time towards you rather than into the screen.

This is a door between planes of the ship. If you've got tired of one 16 × 8 level then find one of these and the world will rush by as you find yourself in another complex of corridors.

Here's a power point. Recharge the laser by pushing the joystick up if you're standing here — but if you get into a battle it could lead to some frantic switching between charge and fire.

This is where you'll start, the Docking Bay, though its location in the ship will be different every game. The row of front-loading washing machines is, in fact, a line of alien shuttles.



A Robo-serve machine? No, a generator to make sure there's always enough power to keep your laser blasting.

Here's a lift with a difference. Found only on the outer layer this is the exit, an airlock into space. But there's no escape because the ship is surrounded by an energy band and it's crawling with robots outside.

Here's your craft — achieve your mission and you'll be flying off in this. If all goes to plan the program will include a super view through the windscreen of the lizards getting fried.

This is the main communicator device, complete with six major functions all of which are extremely useful. Only the lizards haven't marked them up as 'Extremely Useful' and you've forgotten your Let's Speak Lizard phrase-book. Looks like trial and error time. So here, in no particular order, are things you'll be able to do — and don't forget that some functions lead to sub-functions. Arrgh!

- **Open door.** To do this you'll be presented with two bars of lizard digits, one a scrambled version of the other. Using flips to match the digits you can pass security and go through.
- **Construct and send message.** Work this one out and you can call up some amphibious Good Buddy, Ten Four. You'll be presented with a scrolling selection of message parts in the middle window to be assembled into phrases to the left.
- **Request location.** Without an A to Z you may be feeling lost and this will give you the plane, level and sector. Of course this is very little use until you've an idea of the ship's layout.
- **Manufacture Red Dust.** You can't decide to gas the geckos until you've obtained the formula, but if you've all the pieces and they overlay each other, you're in with a chance.
- **Lay explosives.** You're going to need this at the end of the mission, and to work out the timing device. If I were you, unless I knew exactly where I was going, I'd use a lo-nng fuse!
- **Off switch.** No self respecting electronic device lacks an off switch — other than the Spectrum that is! Use this to get back to main control.

FAX BOX

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Publisher	Ocean
Price	£7.95

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TO BE CONTINUED.

HACKER

Intelligence supplied by Daniel Murphy, Maidstone.

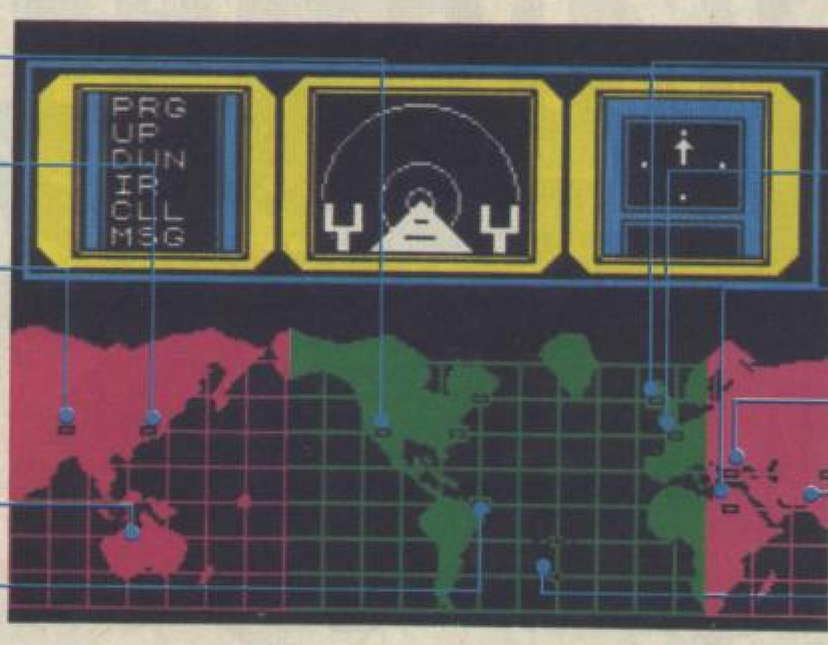
Hey, far out. Amazing. In San Francisco they'd still really dig an old autographed *Beatles* album. Cosmic.

The Japanese spies accept any old honorable 3k uncut diamonds you might have lying around collecting dust.

Down in China, glasshopper, what they want is stocks and bonds. Dunno why, I thought they'd go for the *Beatles* album!

Australia is the test site. You get disconnected if you go here, due to enormous leaks of geo-thermal energy. (What happens? Well it sounds like Phht! That's you going up in smoke.) Is this any use? Well yes, you can log on with Australia at the beginning of the game, saving all that hassle with system tests.

Brazil, as you probably know, isn't known for it's Jade carvings, so that must be why they want some.



As for jolly old England, being a country of amateur photographs, they'd like a 35mm Camera.

In gay Paree they just resist . . . well, girls, yes . . . but in this case they're the only people who will take your plain dirty old money.

Egyptian spies are always on the lookout for a good cheap chronograph. I think this means watch, but I guess it could be Big Ben Tower. (Bzzzt)

In Turkey they'll really gobble up a statuette of Tut. Only if it's a gold one, though.

The spy in India just can't say no to an emerald scarab. Who could, though?

Security Satellites give you security tests if they pass over you. The answers are: 1. Magma, Ltd. 2. AXD-0310479 3. Hydraulic 4. Australia.

GLASS

Hints and tips sent in by Pete Piper of Wigan

The Timer: there are two ways you can pass onto the next level. Either clear it of aliens or hold them off until the time runs out – you score more for hitting them though.

The shields prove that you really have got something to lose in this game. If you want to make it to the end you really must preserve your shields at all cost. Avoid the monoliths, don't shoot the spaceships' dish antennae and, as on this screen, blast the nasties before the anti-matter blobs they lob at you break down your shields.



The best way to deal with these ominous spacemen is to hold the fire button down and wait for them to walk into the beam. You'll have to be very persistant 'cos they take a lot of shots before they blow up.

Nukes are only used when you blast your way to the alien capital city. Shame really, 'cos you could really use them in the main game. Ah well, c'est la vie.

The direction finder scope lets you know when various beasties are creeping up on you. Keep an eye on it but don't rely on it too heavily or you'll find that the nasties will have shot you before you've had time to fire.

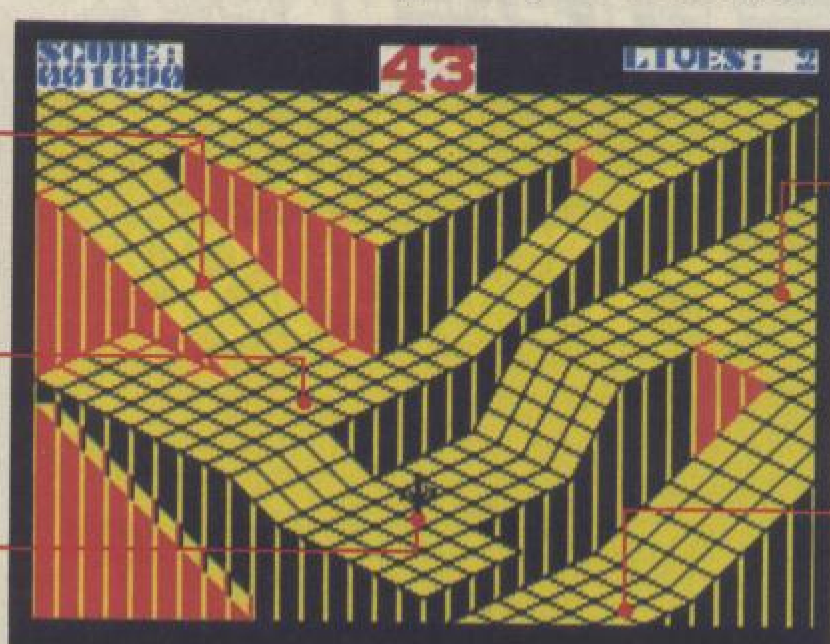
GYROSCOPE

Intelligence by Cosmo McKinley, Hemel Hempstead, Hertfordshire.

This screen is the major stumbling block to anyone who actually wants to finish the game before they start drawing their pension. To start with, don't move the joystick *at all* until you've rolled down this slope. You will over compensate and crash into the wall or fall over the edge.

Getting past this little twist in the floor isn't as hard as it seems. It's practically a straight line, in fact, and so just the tiniest flick of the joystick will ease you around it. Don't do anything else yet, just roll until you get to the plateau.

Ah, safe! Well, you can reverse thrust in time to stabilise your gyroscope until you can gather your energies and nerve to climb the next slope. Time is ticking away, though, so ease SLOWLY up the next section of track, keeping control so you can pick the best point on the wall to bounce.



The edges of the screen are like the bumpers on pinball machines. Hit them and you bounce off faster than you hit. You can work this very annoying, and sometimes terminal, characteristic to your advantage. You can bounce off this wall and down the slope onto the next screen. You have to time it just right, or you'll end up going over the edge. (Again!)

This way lies the big surprise spoken of on the sleeve of the game. To get to it, find a little black square on a raised platform; roll over it and . . . well . . . It's just simply amaay-zing! It's a great big . . It's a great . . . Aw, blow it, do it yourself and find out!

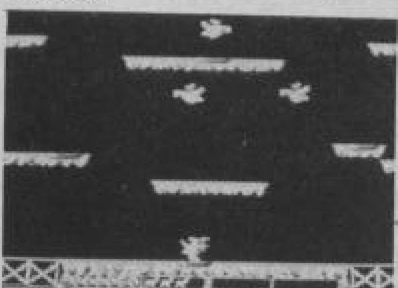
QL SOFTWARE

Here's *Andy Pennell's* round-up of the latest games for the QL. The ideas behind them may not be that new but the programming's well up to standard.

KNIGHT FLIGHT
Realtime Software/£14.95

Isn't this a version of the arcade game *Joust*? I'm afraid I never squandered my 20p's on this one so I'm not altogether sure how similar the two play. You're a knight on a horse flying around a screen populated with platforms. But you are not alone. The skies are full of unfriendly knights just dying for a joust — it's your job to make sure they do die. When you meet one of them for a spot of knuckle dusting, the winner is the highest player so it pays to hang around the top of the screen. If you come out on top, the rider of the defeated horse falls to ground and there are bonus points if the horse bites the dust as well. From time to time, the dragons get dragged on but they're best avoided 'cos they always cheat.

The game's graphics are very neat, the sound less so, but for a while it had me hooked.



Graphics / Playability / Value for Money / Addictiveness — 7

QL FICTIONARY
Sinclair/£12.95

I was more than mildly amazed when I read the back of the packet. What? Sinclair's releasing something as simple as a word game for the QL? Now I've played I reckon I know why.

The QL has three big advantages over the Speccy when it comes to games — it has a better screen display, a lot more memory, and microdrives as standard. Except for that screen display, *Fictionary* makes good use of the memory and microdrives to store the vocabulary.

The main game's similar to that old telly favourite, *Call My Bluff*. You're given a bizarre word with four possible meanings. You have to guess which one's correct. Now with one player this is dullsville pretty quickly but if there's a group of you (up to four can play at the same time), it can be a lot of fun.

Now this game's not for young children. Apart from the advanced vocabulary, there are certain words that youngsters might start asking all sorts of strange questions about — I leave them to your imagination.

Altogether there are 1200 different words so repetitions are few and far between. Even if you do get the same word twice, the possible solutions are changed each time, so it's still tricky to remember the correct one.

As a bonus, there's another game called *Wordhoard* thrown in. It puts a word on the screen and then gives you three minutes in which to think of as many smaller words that you can make out of it. About as interesting as waiting for snow in the Sahara.

Graphics / Playability / Value for Money / Addictiveness — 7



FLIGHT SIMULATOR
Microdeal/£19.95

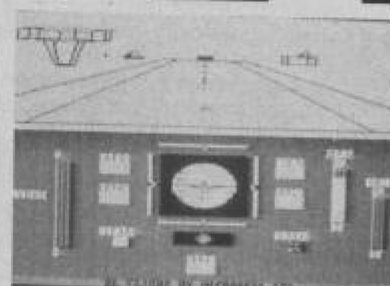
Counted among the many talents I don't possess is the ability to fly a plane. But I have flown many a flight simulator and this seems to be one of the most accurate as well as being a great deal of fun to play. I tried to get off the ground immediately without reading the instructions and couldn't get it to go anywhere, despite a maximum amount of welly on the throttle. Well, so accurate is the simulation that you have to turn the ignition on first!

You look through the front of the cockpit at the 3D wire graphics that give a very good representation of the outside world. Even better, they're flicker free though that's not too surprising as they only get drawn once a second. Still, the playing area's large with loads of objects to look at and fly into — or should that be past! It's a shame that the other graphics such as the cockpit dials are not that imaginatively represented —they're just shown as simple digits.

There is far more to the game than the first Speccy flight simulators — it's certainly a lot harder which more than likely means that it's more realistic. It doesn't have the speed and the colour of the later simulators though.

All in all a good simulation even if I never got the opportunity of landing again — well, apart from nose-diving into the earth at great speed.

Graphics / Playability / Value for Money / Addictiveness — 7



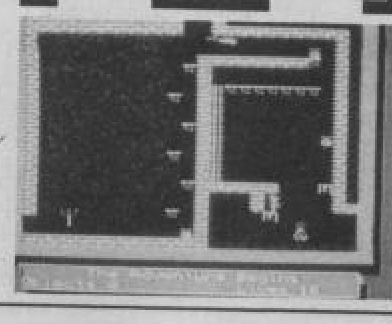
QL BOUNDER
Sinclair/£9.95

Now why wasn't this called *QL JSW*? After all, it's a pretty straight-forward platform game. But then again, platform games are still a rare breed on the QL and even though I've played millions on my Speccy, I still enjoyed *QL Bounder*.

So, what's the plot? Well, you're a very neatly animated man who, surprise surprise, has to collect a large number of bags of money from fifty-nine different locations each of which is stocked with baddies and obstacles injurious to the player's health. Not very original, I grant you, but it's been implemented extremely well and just goes to show that QL games can be better than their Speccy equivalents.

The sound effects are a bit thin — just a lot of beeps that sound little better than Speccy originals though they're somewhat more audible and they don't interrupt the game at all. Plus, a great deal of imagination has gone into the graphics — just take a butchers at those vicious looking lawnmowers and mousetraps, though there are some less original ideas like bouncing boots. Certain M Smith-type features are missing altogether — no stairs — but altogether the game is excellent. Without a doubt the best of its type on the QL.

Graphics / Playability / Value for Money / Addictiveness — 8



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Just a few of the things you can do...

PAINTPLUS (GRAPHICS SUITE 1)

If you want to produce fantastic screen graphics or UDG's on your Spectrum, then you will find PAINTPLUS not only a complete graphics toolkit . . . but also the simplest to use at every level.

Facilities include: DRAW, PLOT, ARC, CIRCLE, FILL IN SOLID OR PATTERNS, FILL IN OVER MODE, DRAW RADIALLY, ARC RADIALLY, ENLARGE TO EDIT, PAPER WASH, BOX DRAW and so on . . .

As well as drawing, PAINTPLUS has a tremendous UDG section. It also has UDG "grabbing" from screen as well as full facilities for defining, saving and loading UDG sets.

The Organiser section of the program enables you to automatically store multiple screen graphics or multiple UDG banks.

PAINTPLUS comes with a demo of screens, animation and alternative character sets, plus a copy of Print 'n' Plotter PICTURE BOOK – 100 pages of instructions, hints, tips, listings and related graphics information.

SCREEN MACHINE (GRAPHICS SUITE 2)

SCREEN MACHINE is *the* graphics manipulator.

Use it when you want to take your graphics and turn them into professional machine coded data for use in BASIC or M/Code programs.

For instance:

SCREEN MACHINE will compress the memory consumption of your graphics to cram even more into the computer's memory –

As well as memory compression, SCREEN MACHINE allows you to put your graphics through a series of highly-sophisticated graphics manipulations.

These include ENLARGE, REDUCE, RELOCATE TO OTHER PARTS OF THE SCREEN, STEP AND REPEAT, BLEND SCREENS TOGETHER, RECOLOUR SELECTIVELY OR GLOBALLY, FLIP SCREEN, etc.

And SCREEN MACHINE also has a dedicated Text Compiler – ideal for anyone who uses lots of text for instructions or menus on screen.

SCREEN MACHINE also comes with a copy of PICTURE BOOK and a demo that's so good you can't believe it.

ART-O-MATIC (GRAPHICS SUITE 3)

Ever wanted to produce screen graphics for Adventure Games, Educational, Training, or Scientific programs and run out of memory because the graphics handling consumed too much memory?

If so, you need ART-O-MATIC, Print'n'Plotter's great new graphics compiler.

With ART-O-MATIC you can draw, define and store an incredible number of screens or parts of screen in your programs as compiled instant machine code which is usable from BASIC or M/C.

The exact amount of compression possible depends on your graphics, but up to 99% is possible and an average of 85%-90% is usual.

ART-O-MATIC is a complete graphics drawing program, so you can produce your works of art and compile at the same time.

The instruction book and demo that comes with the program show you *everything* you need to know about cramming great graphics into your Spectrum.

SPRITE MACHINE (GRAPHICS SUITE 4)

There have been a number of programs called Sprite Generators. Most of these are self-contained and not a great deal of use to people who want to use Sprites in their own programs.

SPRITE MACHINE is different. This program was written with *you* in mind – whether you are a professional, amateur or beginner.

There's never been a simpler Sprite program to use. All you have to do is draw your Sprite and then choose from a fantastic range of options to get it doing what *you* want.

You can: animate your Sprites, choose any direction and starting position, adjust speed, adjust height, choose running time, decide on edge actions such as bounce, wraparound, reflect or stop, make intelligent decisions like strike and collision actions, colour your Sprites or take colour from the screen, trace or non-trace, etc.

The program comes complete with a cursor-operated Sprite drawing board and catalogue/store function.

Instruction booklet and demo are included with the program.

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MEGA BASIC HINTS & TIPS

The Mike Leaman MegaBasic mailbag is almost as mighty as his program. So, this month he's here to help with some of your problems and perplexities, as well as sharing some programming hints you may not have come across — yet!

The response to *YS MegaBasic* has been so huge that it's about time I had a chance to answer many of your queries on the inner workings of the program. So, if you have any problems or there's anything you don't understand and you'd like me to clear it up for you, drop me a line here at *YS* and I'll do my best. But don't only see me as an agony aunt (*Could be difficult, Mike! Ed*), but send in any of your own Megahints'n'tips so that we can all share them.

There's one problem that's cropped up over and over again in my postbag. I'll just mention the Computer Department of Friends School, Saffron Walden and **A Raven** of Basildon who've written to me, asking when I'm going to get around to converting *MegaBasic* onto the Rotronic's Wafadrive. They've all had a go, but without much success. Well, the waiting is over — I've come up with the code, so you'll no longer have to wait an age for the tape to load.

Here are the simple steps you should follow. Turn your Speccy on with the Wafadrive connected — pretty sensible really! Enter NEW• and then rewind your *MegaBasic* tape to the beginning and enter CLEAR 39999: LOAD"" CODE. Now start your tape recorder and you'll load *MegaBasic* into memory. Right, it's time for the measly bit of hard work you've got to do — type in the following program:

```
  10  REM WAFADRIVE CONV
ERSION
  20  REM PROGRAM   24-9-
85
  30 REM
  40  LET c=0: FOR z=5806
4  TO  58092
  50  READ b:  POKE z,b:
LET c=c+b
  60  NEXT z
  70  IF c=2319  THEN  PR
INT "BLOCK 1 IS OK!":  GO
 TO 90
  80  PRINT "ERROR IN LIN
E 9000 OR 9010":  STOP
  90  LET C=0:  FOR Z=470
00  TO 47061
 100  READ b:  POKE z,b:
 LET c=c+b
 110  NEXT z
 120  IF c=7018  THEN  PR
INT "BLOCK 2 IS OK!": GO
TO 9999
 130 PRINT "ERROR IN LINE
S 9020  TO 9040": STOP
9000  DATA 58,0,0,254,243
,40,21,0,0,0,0,0,0
9010  DATA 0,0,0,0,0,0,0,
221,225,241,42,76,233,251
,201,213
9020  DATA 245,254,10,32,
10,58,207,92,254,79,32,3,
205,74
9030  DATA 20,33,0,0,253,
116,55,253,116,38,34,11,9
2,215,176,22,193,4,33,205
,13
9040  DATA 35,203,126,40,
251,16,249,126,205,134,12
,35,203,126,40,247,237,12
3,61,92,51,51,33,248,209,
229,199
9999  POKE 47278,0:  POKE
 47279,0
```

C'mon that didn't take too long, did it? Now RUN it and save the new *MegaBasic* code to Wafa by entering SAVE# "MB", 45000, 20368. All we need now is a new loader program for the Wafadrive, so enter NEW# and that'll clear out the conversion program. Finally, enter and save this loader program:

```
10 POKE 23737,152
20 POKE 23738,183
30 CLEAR 44999
40 LOAD•"MB"
50 RUN USR 56100
```

So, if any of you have been putting off getting hold of a copy of *MegaBasic* 'cos you couldn't convert it to Wafadrive, well that excuse doesn't wash any longer. And I don't know why all you Opus disk drive owners are looking so smug — as soon as I can get my hands on one of those natty devices, I'll be doing a conversion routine for that too!

Steven Port has written in from Greenwhich to ask me where he can find the other two fonts in *MegaBasic* — he wants to use them in his own programs. For starters, what I'd like to know is why on earth you're writing programs that aren't in *MegaBasic?* Herumph! Just this once though I'll tell you. The Amstrad type font starts at 45000 and the BBC one starts at 48000. They're both 768 bytes long, so say you wanted to save the BBC character set to tape, you'd use SAVE "Beeb" CODE 48000,768. Now d'you see why they call me the font of all knowledge!

Now for the complaints department. Lots of you have been moaning about the fact that every time you power up your MegaSpectrum, you have to use the KEY command to define the user-defined keys. So, is there a way of saving the key definitions so that they can be loaded in, all in one go? Ha, there is a way! The definitions for the user defined keys are stored starting at 59956 and there are 256 bytes for each key. That means that if you want to save all ten keys, you just have to use SAVE "KEYS" CODE 59956,2560.

And now a hint for all you who indulge in the strange habit of hacking — I mean, why should Chris Wood have a monopoly on the subject! Here's how you can personalise your copy of *YS MegaBasic* by redefining the error messages. They start at 52987 and finish at 53164 and the end of the message is signaled by adding 128 to the ASCII code of the last character. So, here's a little program that'll print out each error message and its starting address:

```
10 LET P=52987
20 PRINT P
30 LET Z=PEEK P: LET P=P+1
40 IF Z>127 THE VDU_(Z128):
PRINT
   'P:GO TO 30
50 VDU_Z:GO TO 30
```

Now all you have to do is POKE the ASCII values of the message you want into the correct locations. It's even more fun if you can get your mitts on a friend's copy of *MegaBasic*.

Now **G Gapper** of Glos isn't too sure about the DEFG command and would like me to do a quick run through on it for him. Well, the DEFG command is a quicker way of defining user defined graphics. In normal Sinclair Basic you'd define the UDG 'a' using the following lines:

```
10 FOR A=USR "A" TO USR
"A"+7
20 READ B:POKE A,B
30 NEXT A
40 DATA 255, 129, 129, 129,
129, 129, 129, 255
```

Now this sub-routine reads the data for the graphics and POKEs it into the correct area of memory. It also takes four lines of Basic! With *YS MegaBasic* you can do exactly the same in one line, so here goes:

```
DEFG_"a", 255, 129, 129,
129, 129, 129, 129, 255
```

The DEFG command takes nine parameters. The first parameter is a string and shows which graphic is to be defined and then this is followed by the numeric data for the graphic.

Now for a moan. **S G Wylie** of Ramsgate doesn't like the three overlapping windows. What you have to do is tell the system that you want to use the same window for all output. And to do this, you have to use the FX command — the command used to control the *MegaBasic* system. The command is followed by two parameters — the first indicates the function you require and the second is the data required by that function. Have a look at this:

FX_0,n defines which window is used for input.
FX_1,n defines which window is used for automatic listings.
FX_2,n defines which window is used for program output.
FX_3,n defines which window is used by the MONitor

Say you wanted to use one window for all four functions, then you'd use something along these lines:

```
FX_0,2:FX_1,2:FX_2,2
:FX_3,2
```

Now only the output window (window two) is used and bang goes the problem of overlapping windows.

And if you want to set the copy cursor to use yellow ink then try this:

```
CURRENT_1:INK 6
```

When you've got version of *YS MegaBasic* that you're happy with, all you have to do is save it together with a loader. Bingo, your own customised *MegaBasic*!

If you're having trouble with YS MegaBasic or if you reckon you've come up with a hint that even Mike won't have sussed, write to MegaMike, YS 14 Rathbone Place, London W1P 1DE.

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My Timex 2040 printer and Spectrum are having a slight personality clash. They just don't get on, even though I've tried changing the printer for another one. Is it compatible with the Spectrum?
J Allen, Needham Market

Well, I can confirm that it is compatible 'cos I've got one, and it works with all models. Maybe the edge connector's dirty or it's possible that the connector is loose. If cleaning it doesn't solve the problem I suggest you get your Spectrum repaired.

Do you know of a circuit that allows you to POKE the Spectrum ROM? I know YS 2 featured an article that told you how to do this but unfortunately I can't get hold of a copy as it's sold out.
Bruce Phipps, Hatfield

The SoftROM appears to be the answer and, yes you're right, it did appear in *YS* 2. And, just for you Bruce, we'll send you a photocopy.

I've got a VTX, wafa-drive and Cambridge joystick interface. Fine, you may think. Well, that's just it, it isn't! When I've got the VTX and wafa-drive connected the picture rolls, though it's okay if only one is connected. Why?
John Thurborn, Chiselhurst

It sounds like your power supply may be at fault 'cos both peripherals use quite a bit of power. Try swopping it with another power supply to check if this is the case. If not send it to a repair shop to get it looked at.

Hey Steve! I've gotta new colour television. But the colours are all wrong. Red gives green and green gives red. It's alright on my friend's version 3 Spectrum but not on my version 2. Why?
Trevor Harris

Are you sure you're not colour blind? No, seriously there are two brown variable resistors inside the Spectrum issue 2 that can be adjusted to give the correct red/green balance. Try twiddling with the lower one and that should sort you out.

I've got Termel software from Modem House and I'm connected up to Easylink so I can send telexes far and wide. But I've got two problems. First, is it possible to do screen dumps of the information to my Alphacom printer? And secondly, I would like to print outgoing messages but I'm having problems sending tham out with the 'T' function.
James Dunbar, Inverness

You can do the screen dumps, no trouble, by exiting to Basic and using the COPY command. The 'T' function will only work if Easylink supports XMODEM protocol. If you want to send messages from a buffer you'll need *Specnet III* 'cos that'll allow you to create text files using *Tasword* and send them as if they were typed from the keyboard. There's even a version that'll do 64 characters per line. Good eh?

Oh, I've got a little bug, or rather my Spectrum version 2 has. First it started to fail on the arrow keys and then the delete and graphics keys. I soldered the 2K resistor in across R68, as suggested, but still nothing. I finally solved the problem by tightening the clamp inside the keyboard that joins all the bits together. Try it if you've problems.
Torsten Dahlkvist, Sweden

Thanks Torsten. It's nice to see readers providing all the answers. At least it lets me put my feet up for a little while. If more of you write in maybe I can retire early.

We would like to add a reset switch to the Spectrum, not an on/off switch, can you tell us what connections to make?
GS Phelan and Pete Taylor, Cheshire

Easy! If you can solder, that is. The big 40 pin IC near the edge connector is Pin 26 of the CPU. This is the reset pin on the Z80A CPU. Connect a switch between this and Pin 29 of the CPU, press the switch and release it. Hey presto! It resets.

My Spectrum has the XK system fitted to it and I'm now having trouble loading games like Knightlore and Atic Atac. Where can I get a loading device that'll solve this problem?
Reg Crawley, Hitchin

The loader I think you're talking about is available from the place you purchased your XK system — TV Services of Cambridge. It's free but it would be a good idea to include some postage for the tape.

HARD FACTS

Have you got a hard luck story to tell us? For hard headed hardware advice Steve *Adam*'s your man.

I'm having trouble with my ZX printer. It runs okay for about 100 lines and then it gets slower and slower and makes terrible squeaking noises. I took my life in my hands and pulled it all to bits but I still couldn't find what was wrong. Any ideas?
Phil Purle, Gloucester

Well, it could be 'cos the balance of the weight in the paper reel is wrong. It's possible that the paper is scraping one side of the printer as it turns. Try a bit of violence — bang the end of the reel on a table top to get it back in line.

I've got a Speccy with* Tasword II, *Epson LX80 printer and LPRINT III interface. How do I send the ESC codes to operate the printer?
Jack Colbourne, Cornwall

YOUR SINCLAIR
14, RATHBONE PLACE
LONDON W1P 1DE

LPRINT III uses interface codes that must be sent before you can send control codes like ESC (CODE 27). These can be entered into *Tasword*, when changing the graphics codes, by answering 'yes' to the question, 'Change interface codes?' Once you've done this you can set up the graphics characters to print the ESC sequence of codes you want. Save a new copy of *Tasword* to keep the changes in.

I would like some advice on what joystick and joystick interface to buy. There isn't a great selection over here in Australia and I'm not sure of the best. Can you help?
Graham Ung, Australia

We certainly can. If you can get hold of a copy of *Your Sinclair* (issue 2) you'll see a review of the top ten joysticks — that should give you some guidance. The Quickshot is a pretty good one with two buttons for a quick response. As for the interface I reckon the Kempston Compatible is probably the best for the sort of software you mention. There are plenty about, just look for the cheapest and most rugged.

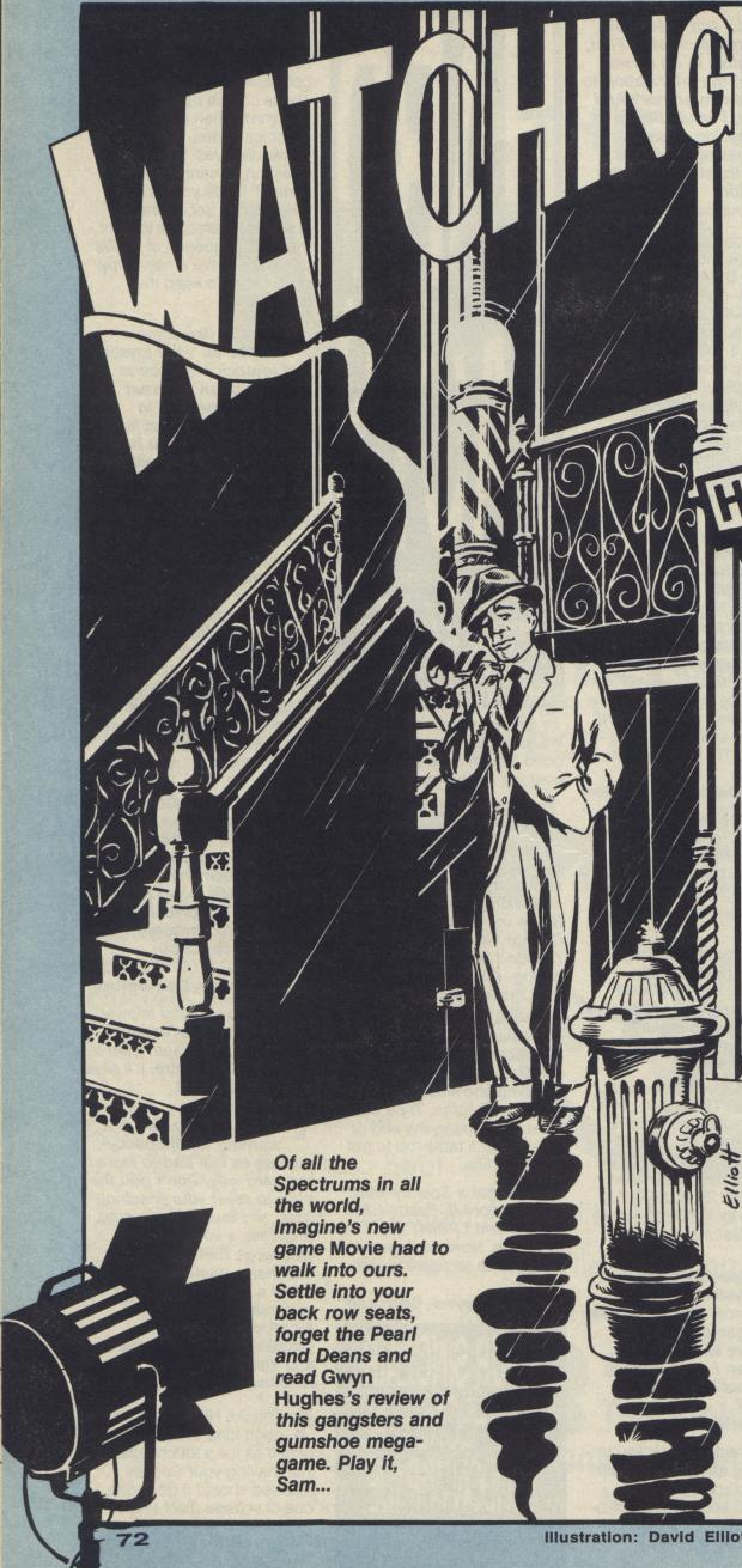
Help! My rubber keyboard is so rubbery I can't get all the keys to register. I've been driven to pressing them very hard with a pencil to get it to work. Will a replacement Speccy Plus keyboard fit, and if not can it be repaired?
David Savage, Canterbury

And now for the answer! Get a new keyboard underlay (membrane) from a Sinclair repair centre. It'll cost you about £9.00.

I'm writing to give a warning to all Speccy owners as I've had to learn the hard way. Don't pull the plug to reset your machine 'cos, as I found to my cost, it causes a voltage discharge that can cause expensive damage. Either allow a lapse of several seconds or, even better, incorporate a switch between the transformer and set.
HP Macdonald, Devon

Thanks HP. It's always a good idea to fit a reset switch as it's a lot cheaper than having your Speccy repaired should it go wrong 'cos of voltage discharge.

WATCHING THE DETECTIVE



Of all the Spectrums in all the world, Imagine's new game Movie had to walk into ours. Settle into your back row seats, forget the Pearl and Deans and read Gwyn Hughes's review of this gangsters and gumshoe mega-game. Play it, Sam...

Call Mike Hammer, call Sam Spade.... but when you want the best you call me — Jake Monkey-Wrench. I tool around and get the job done.

The voice on the phone said, "Jake, I've got a problem. I'm the Ed." "That's some problem." I agreed. Ignoring me, he continued, "I want you to find a cassette tape. It contains enough evidence to send Mr Big down the river for a very long time." Pausing only to wonder why the Ed should want to send a gangster on a boat tour, I asked, "Tell me where I might find it." "That's the problem," he told me, "It's hidden in a computer game!"

And so it was. I sat in my East Side office, in front of a computer monitor, the whole of New York to search and I'd never have to leave the building. Luckily the city was no stranger to me — the same 3D view that seems to turn up everywhere nowadays. However, I was pleased to find that I could choose between up/down, left/right movement or rotation and forward techniques. And what was this — 'IQ On'? A neat touch means that if I walk into an object the computer can take control and guide me past it.

10.32 pm: *I'd found a gun and I was going to need it. In the very next room some hood began taking pot shots at me but I was quick on the draw. I transferred to the icon menu and fired, filling him full of holes and he faded away. No room to be trigger happy though — the city may be a jungle but not everyone's an animal. Soon after I'd plugged the punk another slouched figure approached. I stopped but his speech bubble appeared. But what did he mean by, "I'll see you later"?*

1.03 am: *I'd lost count of how many rooms and alleys my nicely animated figure had trudged down, but there were lots, filled with hazards of the most unexpected types, like animated suits of armour. Something strange was afoot. I'd had to use my wits to push the furniture around and shift objects and I wasn't sure I was getting anywhere. Then I met her the dame.*

The Ed had warned me that there were two sisters tied up in the case — identical twins but while one was good, real good, the other was evil incarnate! I hoped I'd made the right choice as I followed her. Perhaps she could lead me to the gang boss....

1.07 am: *You win some, lose some. Like a kid, I'd followed her straight into a trap. I'd dodged the bouncing bombs, the suits of armour and the low down rats who'd hoped to fill me full of lead. But I'd always been a sucker for a frail and now I'd paid the price. This game is as cool as a trench coat and as atmospheric as a misty street. Here's looking at a VDU, sweetheart!*

Illustration: David Elliott

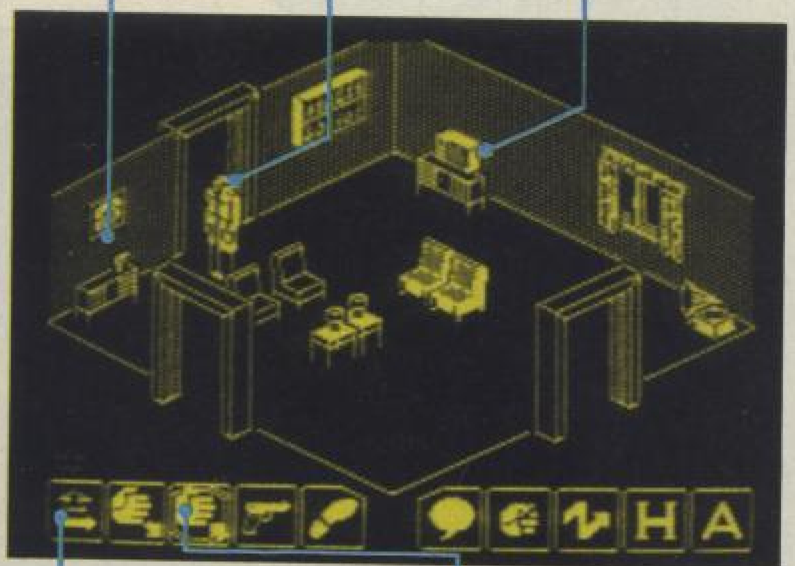
LIGHTS . . . CAMERA . . . ACTION . . . ROLL . . .

10.46 pm: And in the naked city I don't feel clothed without some sort of equalizer. Luckily there's a gun to be found near the office, and a few others carelessly lying around for when I run out of slugs.

You're the magnum I want. Just need to line myself up and let the icons do the rest, then the rod will jump into my hand.

Well, here I am, trench coat and hat brim pulled down. No time to survey the scenery though — I've got to get that gal.

If I wasn't so busy with the case I might try to solve the puzzle of the date — television sets and wind up gramophones together? The game still has a fantastic atmosphere though.



I guess these trench coats come equipped with four pockets because that's how many items the inventory indicator allows you to hold.

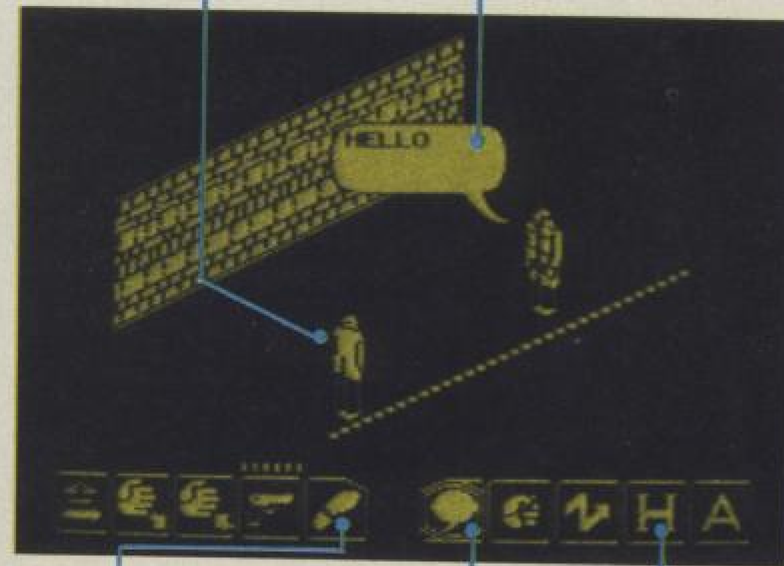
Here's a handy symbol. Choosing this function picks things up — and it doesn't take Philip Marlowe to guess that its neighbour means drop.

11.59 pm: Down these machine code streets a sprite must go, a sprite who is not himself mean. You can never be too careful in the Big Apple but if they don't shoot first chances are they're friendly.

YOUR SINCLAIR MEGAGAME

Just an innocent citizen going about his business — or is he? Maybe he knows something that may prove useful as he wanders along the main alley.

Type in your greetings or questions and they'll appear here. If you're lucky you'll even get an answer.



With a city this size you'll spend most of your time in this default movement mode. Now you know why they call us 'flat-foot'. The walking sound makes me suspect that the gumshoe wears gumboots.

Talking is done in the finest comic book style, via speech bubbles, so choose this option to make polite conversation.

If you need time to ponder a cryptic answer, consult your map — or even pour yourself a slug of bourbon — this is the icon for you. Hold the front page — I'm taking time off.

00.08 am: I felt like I was getting nowhere fast and it was giving me the bird. Then I stumbled on a room with a heavily guarded door and knew that I must be onto something. The question was, what? Perhaps If I'd got a map. Hey, any cartographers out there like to help a private eye who can't afford an A to Z?

As a hard drinking private dick there's always the danger you'll walk into a door frame, but use the IQ option and your auto-pilot will save you from embarrassing black eyes.

Anybody who thinks a parrot is just a feathered echo, think again. Polly here may well give you a clue how to pass through the door.

Strange to find so many suits of armour scattered around, but avoid them because collisions are deadly. This one's very nastily placed, making your passage impossible.



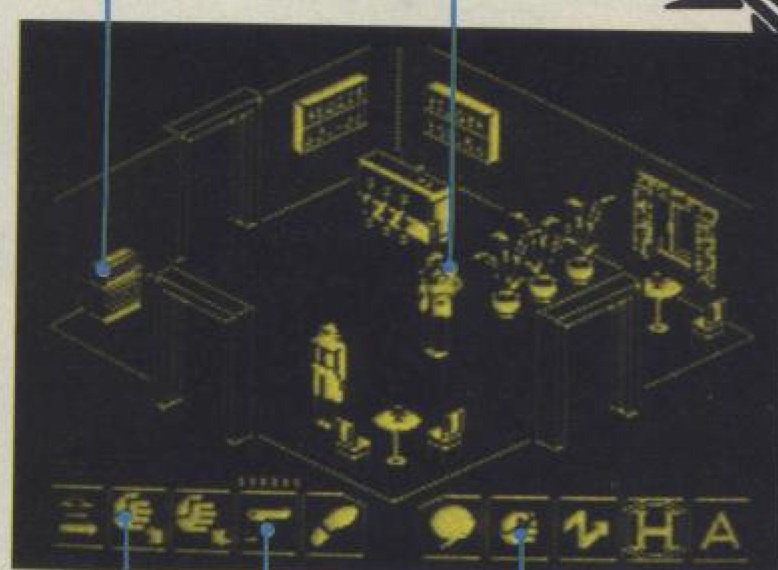
Throwing things can sometimes shift the armour, though not in this case. Perhaps you'd feel better if you threw a tantrum or plugged the parrot!

Suddenly everything went red.... it was the end. That's what happens when you select the Abort option, which is protected with a double check.

00.54 am: By now I was in need of a stiff drink but this guy didn't want to sit down and pour me one. It was easy enough to sidestep this line of fire as I entered the room, but then I'd have to waste him before he targetted me.

No time to listen to the music just yet — in fact, no music, but at least the juke box here jiggles around like it was playing a Bill Haley platter.

Luckily most of the underworld lackeys aren't exactly hot shots, though there are occasions when you walk through a door to be greeted by a truly warm welcome of accurately aimed lead!





All ready for business. Somewhere I'd picked up a brief case. As somebody had asked me for the money, I wondered if this is where it was stashed.

Providing you've selected the gun this is the fire icon, but ammunition which appears above is limited. You need to be pretty nifty to change back to movement, at times.

Out of ammunition? You must have a punch like a mule because your right hook can knock an opponent into another dimension.

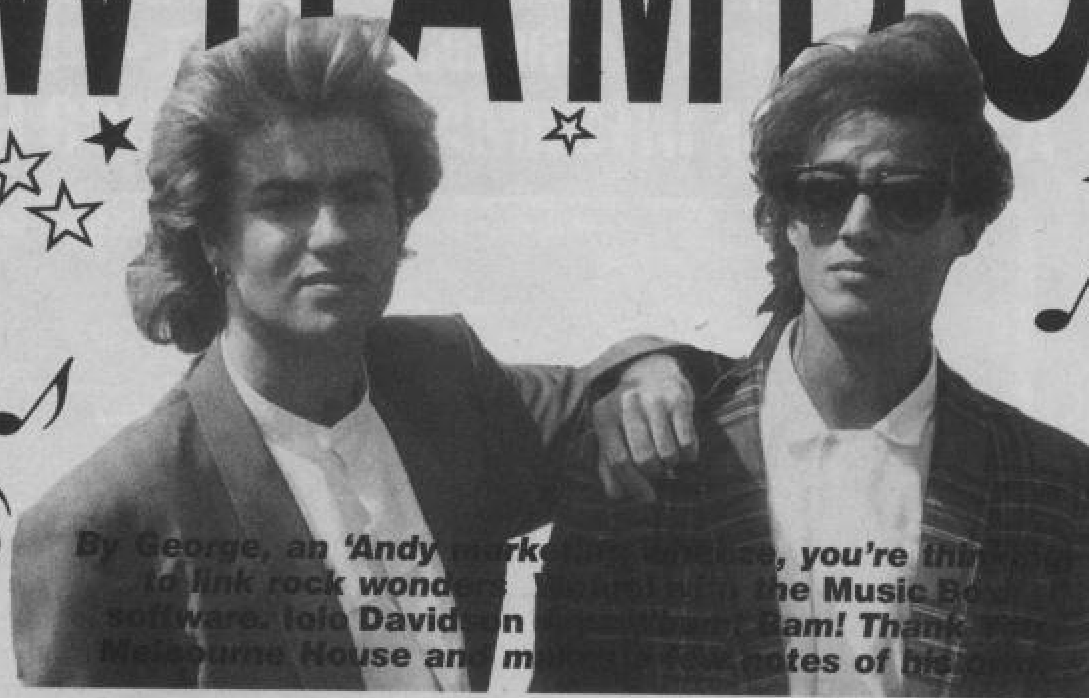
Graphics
Playability
Value for Money
Addictiveness

9

Game .... **Movie**
Publisher .... **Imagine**
Price........... **£7.95**
Joystick .... **Kempston, Interface II, Cursor**
Keys........... **Top Row — Fire, Second Row — Up, Third Row — Down, Bottom Row (Alternate Keys) — Left/Right**


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WHAMBO!



By George, an 'Andy mark[illegible], you're thi[illegible] to link rock wonders [illegible] the Music Bo[illegible] software. Iolo David[illegible]n [illegible] Bam! Thank [illegible] Melbourne House and m[illegible] notes of his [illegible]

●This program comes with five of the faberoony Wham! mega-smashes stored in the *Music Box's* tune memory. Don't ask me what their squillions of fans would make of a Speccy cover version of *Young Guns*, though!

If you ever tire of the Dynamic Duo's ditties you can erase them and compose your own, or key in tunes from sheet music. This is what the program's really about so serious musicians or Duranees need not be put off by the Wham! label.

Besides the music editor, with its easy method of on-screen composition, this program gives your Spectrum an extra sound channel. That means you can play two different notes simultaneously, for two part harmony or simple chords. You'll want some method of amplification to get the most from this program, as no software can cure the innately feeble Speccy beeper.

Once you've composed your hit (or pinched someone else's), you can save it to tape or microdrive, complete with the machine code routine that plays it, as a block of code for inclusion in your own programs. No mention is made of the copyright situation on the inlay, though, so I've no idea what'd happen if you wanted to use this music in a program for commercial resale.

Terry Bulfib's had a quick hack and informs us that there is 4K of Basic inside, and more importantly, that the loading and saving of tunes is done in Basic. This means that the microdrive Save and Load options will also work on other drives that use microdrive syntax, like the Opus disk or Wafadrives.

What makes it all a doddle to use, and cancels all my previous quibbles is the easy editing. You can play in notes by ear, seeing each key you've pressed marked on both the screen's piano keyboard and the stave. You'll hear it as well and by backspacing you can remove mistakes. You can go through the score note by note, or fast forward through it. Otherwise, just play the tune, all the time with a continual display on the piano keyboard and staves. Plus you can listen to the sound of the notes.

Besides the organ like twin voices, you get a 'bass drum' and three somewhat programmable sound effects based on white noise. You can also alter the playing speed. What you can't do is obtain a printout of the musical score — but since the notation is so weird, you won't want to.

First they gave programmers the pop star treatment, now the customers get to be pop stars. I hope all this music doesn't lead you to throw your TV out the hotel window.

Wham! Make it Musical!

Rests are shown as an 'R'. However there's no indication of sound effects or even that the tune has ended.

If you want longer notes than a quaver then use more quavers. Two quavers give you a crotchet, four makes a minim, and so on. Try to forget about semi-quavers.

You'll find some knowledge of music notation may be helpful when keying in a tune on the editor. I say 'may' because the Music Box uses an abbreviated system of notation that'll annoy real composers.

There are always eight quavers to the bar. You can write in other time signatures — but the bar lines will be in the wrong place.

Sharps are indicated, but flats are notated as sharps of the note below. Sharps or flats are played on the second keyboard row. You can only write in C major.



During replay, the effect on the longer notes is a sort of Little Richard keyboard hammering — or what we flautists call vibrato!

Notes for the two channels are shown in different colours. They're reminiscent of the Mad Piano in Manic Miner — but at least this keyboard's tuned.

The music scrolls smoothly to the left during editing or play. Back spacing causes an empty screen to scroll in from the left.

To enter notes into the score, you simply play them in, using the bottom rows of keys on the Spectrum as a piano.

There are four octaves, which is more than can be accommodated on the keyboard, so you have to switch from one to another, losing your way on the keyboard in the process.

You have to key in the two channels separately, which means switching between channels.

Wham! makes Waves!

Everyone knows that the Spectrum has only a single, rather pathetic, sound channel, so how is it possible to play two channel music? Consider, for comparison, a piano. Pressing two keys causes two notes to sound, and unless you're tone deaf, you hear them as two separate notes.

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What the *Music Box* software does is to compare the waveforms of the two separate notes in software, before sending them through the single output channel. By vibrating the Beeper in a complex waveform, the program imitates what would happen to separate notes mixing in the air. The effect upon the ear is similar to that of playing the two notes.



FAX BOX

Title	Wham! The Music Box
Publisher	Melbourne House
Price	£9.95

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YS ADVENTURES

Do you keep suffering Death by misadventure? The Grim Reaper has the skeleton key to all your games. Just drop him a line at Death's Door, YS, 14 Rathbone Place, London W1P 1DE.

First through Death's Door this month is **Alan Green** of Preston who's stuck fast in his *Pyjamaramas.* "Please help me!" he cries, "How do you get to climb the rope in the conveyor belt room?" And you really think I'm gonna help you? Let me tell you that many a proud adventurer has ended up facing the death sentence in trying to solve this game. Okay, I take pity on you — just this once — and refer you to Castle King, **Colin Read**.

"I'm writing in blood!" says Colin, "to offer help to your loyal subjects. I've got heaps of clues for *Pyjamarama....*

1. Playing through all the screens in the video gamesroom will gain you an extra life.
2. When attempting to get the box key make sure that 'Help' is switched 'On' — then you'll be able to get onto the tea box.
3. The raygun can only be loaded in the billiard room and you'll need the power pack to do it. You must then leave it on the moon.
4. To get the crash helmet, first use the driving licence to get the ignition keys. Once in the conveyor belt room, jump via the rope onto the bannister to collect your prize.
5. To gain access to the billiard room, take the hammer out of the toilet — you'll need the penny to get in — and put it in the lift. You'll then get the fire extinguisher, take this down the chimney and put the fire out. If you don't want to be flattened by a large ball take the square key that opens the billiard room.
6. To stop the man-eating plants, fill the bucket at the bathroom tap and place it near the BP can.
7. Once you've opened the box in the kitchen with the box key, take the magnet and return to the moon where you left the raygun. Go next door and jump at the lock, swop the magnet for the clock key and return home to Wally's bedroom where you'll find the alarm clock. Then comes November 5th...."

Well, how's that for a list of timely tips! If you want to escape my evil clutches, Alan, write to Colin at the address in the Kings Of The Castle. I'm sure he'll help you but do remember to enclose an sae.

Colin's got even more clues for that brill game *Doomdark's Revenge.* Maybe he's after the title of 'El Supremo'!

1. Remember if Morkin uses the Crown of Carudrium, Luxor and all his armies are summoned to Morkin's present spot.
2. If Tarithel uses the spell of Thangorn, she'll be taken to Morkin too.
3. If any other character uses its own weapon its energy and despondency levels are fully restored, though this doesn't work with Luxor, Morkin or Tarithel. Rothron can do it if he uses the Runes of Finorn. Thanks Colin, I'm sure there's enough clues there to last a lifetime.

My heart bleeds for **Mr J Weston** from Wiltshire who's having loads of problems with *Neverending Story.* "How do you get past Morla in the Swamps of Sadness?" he cries! I don't think you should even bother to do so — the only thing Morla's good for, as far as I can see, is giving advice. You certainly don't need to get past him to get into the second game. And make sure you don't go walking in the swamp with Artax, unless of course you want to pay me a visit!

Richard Weaver from Plymouth writes in with some tips for *The Hobbit* — yes, people are still having problems. "To get out of the dungeon try attacking Thorin" That's a move that'll have you out of the dungeon, out of the game and into my deathly den before you can say 'meat cleaver'. Richard is also having a few problems with the bulbous eyes. The answer is to 'Wait' twice before moving.

Well, that's it for this month. I've really enjoyed reading all your letters, especially the pleas for help, I just can't get enough, though. Keep those hints'n'tips flowing in — after all somebody's gotta help those poor lost souls and it sure as hell ain't gonna be me. Oh, I must dash some idiot's gone and kissed the snake in *Colossal Cave* and I've got to snatch them away from the land of the living. Oh goody!

KINGS OF THE CASTLE...

Pyjamarama, Doomdark's Revenge, Lords of Midnight
Colin Read, 80 Beech Gardens, Rainford, St Helens, Merseyside WA11 8DN

Forest on Worlds End, Red Moon, Emerald Isle, Twin Kingdom Valley, The Hobbit, Pyjamarama, Sub-Sunk, Urban Upstart
Kevin McIntosh, 419 Great Western Road, Aberdeen AB1 6NJ

The Hobbit, Velnors Lair, Sherlock, Gremlins
Ian MacMillan, 276 Kiveton Lane, Kiveton Park, Rotherham, S Yorks S31 8NL.

ON THEIR DEATH BEDS...

Pyjamarama — How do I climb the rope in the room where the conveyor belt is? How do you smash the glass in the room with lights and numbers underneath? Help!!!
A D Green, 56 Thurnham Road, Larches, Preston, Lancashire

Neverending Story — Help!
J Weston, Westwinds, The Ley, Box, Wiltshire

Aural Quest — I'm stuck in Australia!
Stewart Kinnen, 34 Broadlie Drive, Glasgow G13 3AP

Gremlins — I've had quite a bit of success, but how do you finish the game?
Jason Morrison, 151 Princess Way, Portadown, Co Armagh, N Ireland BT63 5EL

THE SNOW QUEEN

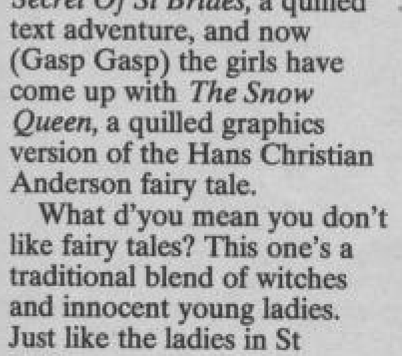
A top of the morning to yers all. Well, I've been hearing the oddest things concerning those young ladies who attend that illustrious school, St Brides. First they brought us *The Secret Of St Brides,* a quilled text adventure, and now (Gasp Gasp) the girls have come up with *The Snow Queen,* a quilled graphics version of the Hans Christian Anderson fairy tale.

What d'you mean you don't like fairy tales? This one's a traditional blend of witches and innocent young ladies. Just like the ladies in St Brides.

Young Gerda has lost her true love Kay, who is held under evil enchantment by the Snow Queen, a cross between Marilyn Monroe and a deep freeze. Gerda must sally forth, what ho! and find her beloved, who seems to have forgotten she exists.

The Snow Queen comes in two parts but you'll need a password to play the second game on the reverse side of the cassette. St Brides has thoughtfully included a 'dummy password' that'll enable you to have a stab at the second game even when you haven't finished the first.

Although *The Snow Queen* suffers from slowish response and rather limited vocabulary it's nicely written with some long location descriptions and enough atmosphere to send a chill up your spine.



FAX BOX
Game........ **The Snow Queen**
Publisher.... **St Brides School**
Price........................ **£7.95**

Graphics
Playability
Value for Money
Addictiveness
5

BEATLE QUEST

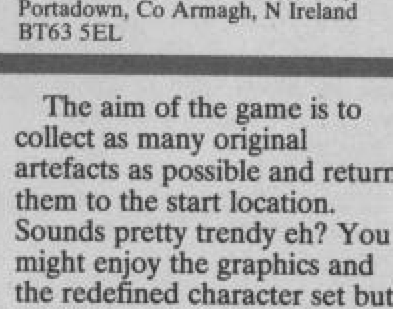
Hey man ... er ... like ... this is quite a groovy number, dig? Like, er, if you fancy the lyrics of John Lennon, sucking a sugar cube, and digging the psychedelic sixties, then this trip is for you, maaan!

From the far-off future you've made your way, via a provoking Fantasy Dome, back to the Swinging Sixties and into an amazing adventure based on the lyrics of the Beatles.

I know The Grim Reaper's as old as the hills but I had difficulty remembering half the lyrics of some of the songs. Unless you're an ageing hippy you may well have difficulty getting into this game.

Beatle Quest was written by Gary Marsh again using The Quill. But there're all sorts of funny little quirks — when the program doesn't understand you it comes up with the response Goo Goo K'Joob(!) from that well-known Lennon ditty. And trying to go in the wrong direction gets you a 'Hey! No way man!'

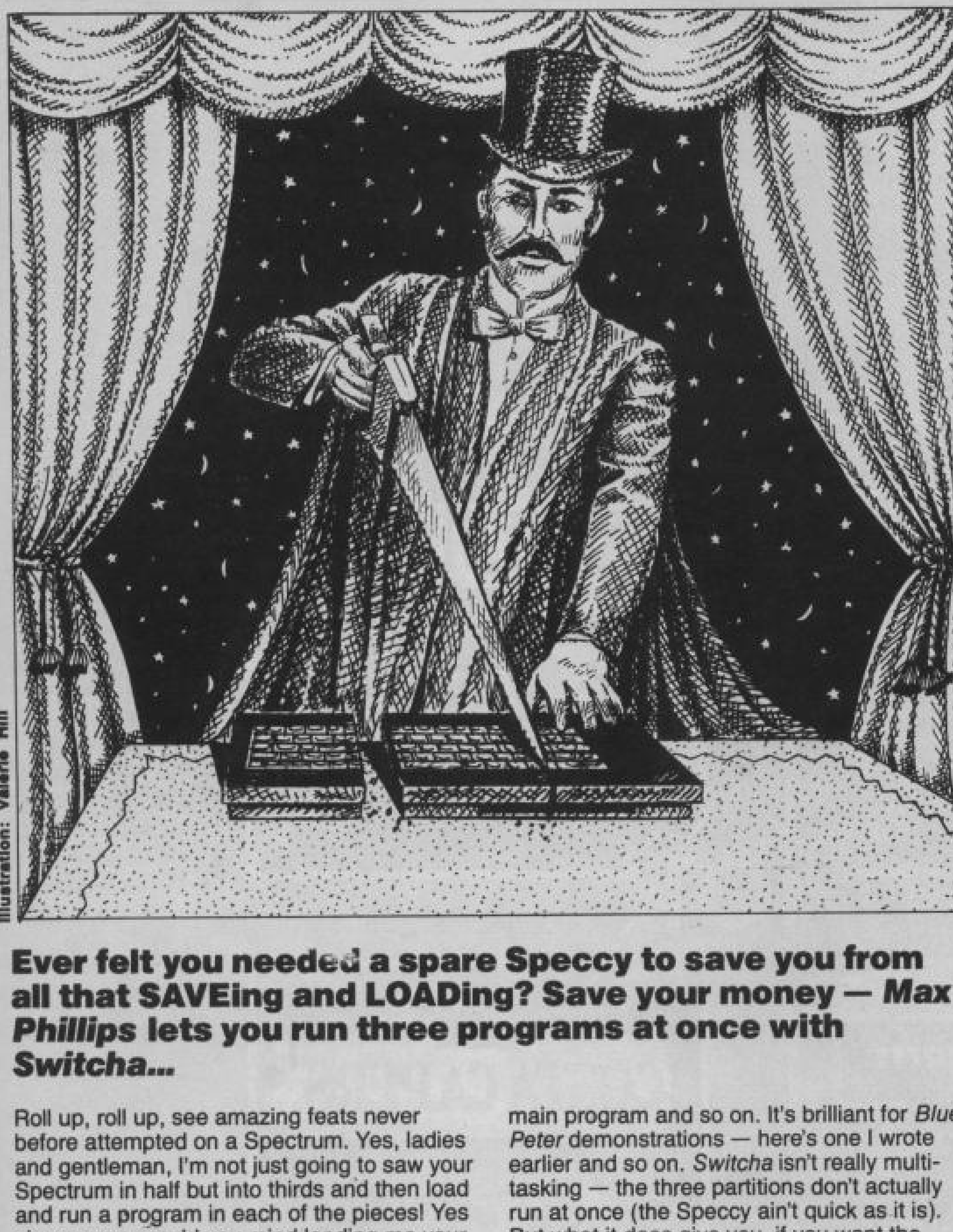
The aim of the game is to collect as many original artefacts as possible and return them to the start location. Sounds pretty trendy eh? You might enjoy the graphics and the redefined character set but Death almost ended up in the grave with the terminal hippy hippy shakes. Steer clear unless you've got Beatles coming out of your ears.



FAX BOX
Game................ **Beatle Quest**
Publisher **Number 9 Software**
Price............................ **£9.95**

Graphics
Playability
Value for Money
Addictiveness
6

THREE INTO ONE WILL GO



This program is available on Digi'T'ape

Illustration: Valerie Hill

Ever felt you needed a spare Speccy to save you from all that SAVEing and LOADing? Save your money — *Max Phillips* lets you run three programs at once with *Switcha*...

Roll up, roll up, see amazing feats never before attempted on a Spectrum. Yes, ladies and gentleman, I'm not just going to saw your Spectrum in half but into thirds and then load and run a program in each of the pieces! Yes sir, yes you, would you mind lending me your machine a moment? Of course you'll get it back in one piece!

Well not quite. What I am going to do is give you a machine code utility that divides your 48K memory into three 16K chunks and lets you switch at any time between them. Each 'partition' is a fully working Spectrum so you can have three programs loaded at once and can edit and run them as normal. At any time, pressing Symbol-Shift and Space will put the current program away and switch to the next one.

This trick is nicked from business machines where people might want to flit between a database, a word processor and, don't tell the boss, a *Space Invaders*. Of course, they do have a bit more memory to play with — half a megabyte or so — and they do have more formal operating systems so that it's possible to switch between almost any group of programs.

Switcha for the Spectrum is more limited but it's not just a pretty face. It's great for messing about with — you can have several versions of the program you're writing on hand and you can doodle new routines and make calculations without disturbing your main program and so on. It's brilliant for *Blue Peter* demonstrations — here's one I wrote earlier and so on. *Switcha* isn't really multi-tasking — the three partitions don't actually run at once (the Speccy ain't quick as it is). But what it does give you, if you want the technospeak, is interruptability or context-switching.

So nip off for a moment and type in and save the Basic Loader. Next, get the *Switcha* code into memory using either the hex loader or by assembling the source code with your own assembler. This should be saved just after the Basic Loader on your tape or onto the same microdrive cartridge.

To start, LOAD"". You'll see a brief message with instructions while the code loads and then *Switcha*'s flashy green or blue border while it installs itself. The program finishes with 0 OK, 70:1 and returns you to Basic as normal. Just to convince yourself it's working, enter CLS:PRINT "Partition 1". Now press Symbol-Shift and Space — the border flashes and you'll get another copy of the 'OK' message. Enter CLS:PRINT"Here's number 2", press Symbol-Shift/Space and you'll get the third partition. Enter CLS:PRINT"And here's the other one". Now by repeatedly pressing Symbol-Shift/Space, you'll flick through the partitions. Convinced?

You can LOAD a program into the current partition as normal and edit it or RUN it or whatever. *Switcha* works while the program is running — when you come back to it, it will restart exactly where it left off. You can even NEW the program in the current partition. If you do this, you'll have to re-connect *Switcha* by entering:

RANDOMIZE USR 64842

The other two programs you had loaded will have survived the NEW and you can switch back to them! If you happen to run any other routine that disables interrupts, this RANDOMIZE should always restore *Switcha*. Probably the only way to get rid of *Switcha* is the trusty old RANDOMIZE USR 0 — but remember to save everything (don't forget your inactive programs) before you do it!

You can't switch during I/O operations such as cassette loading or microdrive access but *Switcha* will be back the moment they've finished. *Switcha* works with all known peripherals (including those damn Kempstons) but it might not be a good idea to switch when, for example, a program is driving a music box. In any event, *Switcha* won't let you switch if an add-on has got its own ROM where the Speccy's should be — you'll just have to wait a few microseconds and try again...

NOW THE BAD NEWS...

Of course, you rarely get something for nothing in this world even if the Ed seems to think so. So, what happens when you divide a 48K machine into three pieces? You get three 16K machines. Take away the memory for the display and system variables and a bit for *Switcha* and you're left with just under 8K for each *Switcha* program. So *Switcha* only lets you run small programs. This will be a shock to many but not so much a problem for those of us who had 16K Spectrums or ZX81s in the past.

You can't use *Switcha* with any program that uses interrupts without modifying it first and you can't use it with commercial programs — well, I can't think of any that would work. However, you can run a machine code program in a partition provided it loads below address 32053. Go on, reassemble that 4K *Space Invaders* you wrote years ago! A Basic program that uses a machine code subroutine will work if it installs it by looking at the value of RAMTOP, lowering it and loading its code at the new RAMTOP. Those that waltz in and plonk their code at 65000 or thereabouts should be easily adapted.

GET SWITCHED ON

Switcha has all sorts of possibilities. What about a program that looked at the saved programs in either partition? You could stop a program at any point and then get the next program to look at its variables, alter their contents, change the display or whatever. To do this, just calculate a couple of addresses:

LET nextoff=PEEK 65014+PEEK 65015*256-16384

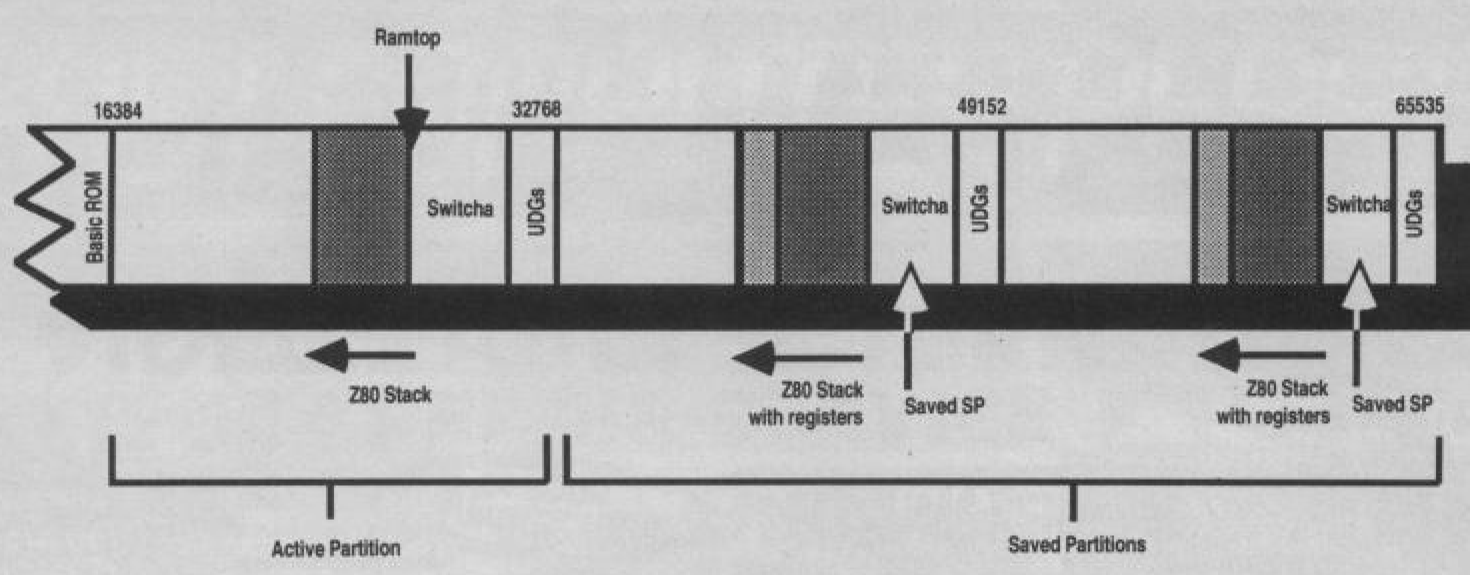
LET lastoff=49152-nextoff

POKE X+nextoff is equivalent to POKE X on a standard Speccy but the POKE will affect the partition that will be switched in next. Similarly, POKE X+lastoff is the same as POKE X only it affects the partition just switched out. So, for example, POKE 23609+lastoff,100 would set the key beep on the program just switched out to 100. By using a lower Ramtop with *Switcha*, you could even create a data buffer where three different programs could exchange information with each other. Suppose your database program could read the results just produced by your calculator program!

And if you're feeling ambitious, there's a hundred different things you could do to *Switcha*. The actual switching is a bit boring — the nicest way to do it would be to scroll the current screen off as the next one scrolls on ... or you could do a configurable *Switcha* that lets you have two or three partitions each with different sizes. Over to you! ▶


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A SWITCH IN TIME (SAVES THREE)



Switcha divides memory into three partitions — the current one is a standard 16K Spectrum from locations 16384 to 32767 and the other two are at 32768 to 49151 and 49152 to 65535. Each partition is a 'snapshot' of a running 16K machine and contains everything needed to restore it to working order. There's a copy of *Switcha* in each partition so that when the 49162 to 65535 partition is exchanged, the *Switcha* at 64842 is overwritten with itself and therefore remains intact!

Interrupt mode 2 is used so that the routine is called fifty times a second; the Interrupt register holds FEh and there's a table of vectors from FEOOh to FFOOh, each byte being set to FDh. At FDFDh, *Switcha* stores a jump to its actual handler. This is horribly cumbersome but it ensures that the interrupt works correctly no matter what's stuck on the back of the Spectrum!

Next, it checks to see if the Spectrum ROM is present and exits if it isn't. This might cause a slight pause before switching if the Interface 1 is fitted but it means that ROM-based add-ons will never cause a crash. Next *Switcha* checks for the Symbol-Shift/Space combination; if so, it snapshots the current partition and exchanges it for one of the two saved ones. The border colour is reset from the system variable BORDCR. The 16-bit value EXBASE (address 65014) is the address of the partition to switch to next — by alternating it between 32768 and 49152, the three partitions are exchanged in sequence.

Switcha exits by jumping to location 38H so that the Spectrum's normal interrupt processing, updating the clock and reading the keyboard, happens as normal. You could alter the exit jump to tack on an interrupt routine of your own.

Basic Loader

Save this at the start of your *Switcha* tape with SAVE "Switcha" LINE 10. All you really need to start *Switcha* are the CLEAR, LOAD and RANDOMIZE commands but this is much more civilised...

```
  10 REM Switcha Loader
  11 REM Max, Xmas 85
  15 CLEAR 32053
  20 BORDER 5: PAPER 5: INK 0: C
LS : PRINT AT 4,6;"Installing Sw
itcha": PLOT 44,132: DRAW 152,0:
 DRAW 0,16: DRAW -152,0: DRAW 0,
-16
  30 PRINT : PRINT : PRINT : PRI
NT "   SYMBOL-SHIFT/SPACE"'"   S
witches to next partition."
  40 PRINT : PRINT : PRINT "    R
ANDOMISE USR 64842          R
econnects after NEW with        i
nactive partitions intact."
  45 PRINT : PRINT
  50 LOAD ""CODE
  60 BORDER 7: PAPER 7: INK 0: C
LS
  70 RANDOMIZE USR 64842
```

Hex Loader

Here's the nasty bit — if you haven't got an assembler, run this and enter the hex dump to get the *Switcha* code into memory and then save it just past the Basic Loader with SAVE "SWITCHCODE" CODE 64842,177. Don't try running *Switcha* first because you can't save an installable copy once it's been installed, if you see what I mean.

```
  10 REM Hex Loader
  12 CLEAR 32053
  15 LET i=64842: LET a=10: LET
b=11: LET c=12: LET d=13: LET e=
14: LET f=15
  20 CLS : PRINT "Enter each lin
e of hex:           Address  8 da
ta   1 checksum   Spaces are opt
ional."'
  30 INPUT  LINE a$: IF a$="" TH
EN  PRINT "Now SAVE it!": STOP
  40 LET ad=VAL (a$(1))*16*256+V
AL (a$(2))*256+VAL (a$(3))*16+VA
L (a$(4))
  50 IF ad>i+8 THEN  PRINT : PRI
NT "Have you lost your place?"
  60 LET p=5: LET z=0: LET j=0
  70 IF a$(p)=" " AND p<LEN a$ T
HEN  LET p=p+1: GO TO 70
  75 IF p>=LEN a$-1 THEN  PRINT
"Fink you've missed a bit!": GO
TO 30
  80  LET x=VAL (a$(p))*16+VAL (
a$(p+1)): LET p=p+2
  90 POKE ad,x: LET ad=ad+1
  95 LET z=z+x: IF z>255 THEN  L
ET z=z-256
 100 LET i=ad: LET j=j+1: IF j<=
7 THEN  GO TO 70
 105 IF a$(p)=" " THEN  LET p=p+
1: GO TO 105
 110  LET q=VAL (a$(p))*16+VAL (
a$(p+1)): IF q<>z THEN  PRINT "O
ops - try that one again!": GO T
O 30
 115 PRINT a$: POKE 23692,255
 120  GO TO 30
```

Hex Dump

A whole heap of hex for you ... if you're using the hex loader given here, enter each line as shown below — each one has an address and a checksum so messing it up is pretty hard.

```
FD4A 21 00 FF 01 FD 00 71 2B BA
FD52 10 FC 71 2B 3E FD 77 2B 85
FD5A 3E 77 77 2B 3E C3 77 11 E0
FD62 4A 7D 21 4A FD 01 B5 02 E7
FD6A ED B0 3E 7F 32 7C 5C 07 6B
FD72 ED 47 ED 5E C9 F5 3A F8 6F
FD7A 7D A7 28 0C 3C 32 F8 7D 3B
FD82 20 18 32 F8 FD 32 F8 BD 46
FD8A 3A 00 00 FE F3 20 08 3E 91
FD92 7F DB FE E6 03 28 03 F1 5D
FD9A 18 57 E5 D5 C5 DD E5 FD AD
FDA2 E5 D9 F5 E5 D5 C5 ED 73 92
FDAA F9 7D 3A F8 7D 4F ED 5B BC
FDB2 F6 FD 21 00 40 3E 01 D3 66
FDBA FE 1A 46 EB 70 CB 79 20 1D
FDC2 01 12 EB 13 23 3E 04 D3 49
FDCA FE CB 7C 28 EB 7A E6 40 F5
FDD2 F6 80 32 F7 FD 3A 48 5C 7A
FDDA CB 3F CB 3F CB 3F D3 FE EF
FDE2 ED 7B F9 7D C1 D1 E1 F1 42
FDEA D9 FD E1 DD E1 C1 D1 E1 EB
FDF2 F1 C3 38 00 00 C0 FD 00 A9
```

Source Listing

This is the source to *Switcha* — you can assemble it with your own assembler and then save it with SAVE "SWITCHCODE" CODE 64842,177. If you make any big changes, drop the ORG address and Ramtop to make room — the vector table from FDFDh to FFOOh hates being overwritten!

```
          org 64842
hook      ld hl,0ff00h
          ld bc,00fdh
loop      ld (hl),c
          dec hl
          djnz loop
          ld (hl),c
```

Set up interrupt vector table.

```
          dec hl
          ld a,enter DIV 256
          ld (hl),a
          dec hl
          ld a,enter MOD 256
          ld (hl),a
          dec hl
          ld a,0c3h
          ld (hl),a
```

Put JP instruction to handler at FDFDh.

```
          ld de,hook-32768
          ld hl,hook
```

```
        ld bc,65535-hook
        ldir
```

Copy *Switcha* & UDGs into low 16K.

```
        ld a,127
        ld (23676),a
```

Adjust UDG pointer.

```
        rlca
        ld i,a
        im 2
        ret
```

Start interrupts & return to Basic. I=FEh.

```
enter   push af
        ld a,(count-32768)
        and a
        jr z,checkey
```

Are we initing?

```
        inc a
        ld (count-32768),a
        jr nz,go4it
```

If yes, go and do a copy.

```
        ld (count),a
        ld (count-16384),a
```

Kill the init counter in all the partitions.

```
        checkey ld a,(0000)
        cp 0f3h
        jr nz,skipit
```

Check the Spectrum ROM is there. If not, return straightaway.

```
        ld a,7fh
        in a,0feh
        and 3
        jr z,go4it
```

Look for Symbol-Shift/Space and do a switch if it's pressed.

```
skipit  pop af
        jr exit
```

Restore registers & exit.

```
go4it   push hl
        push de
        push bc
        push ix
        push iy
        exx
        push af
        push hl
        push de
        push bc
        ld (spsav-32768),sp
```

Save the Z80 registers.

```
        ld a,(count-32768)
        ld c,a
```

Get the init count in C.

```
        ld de,(exbase)
        ld hl,4000h
```

Set up pointers for exchange.

```
xloop   ld a,1
        out (0feh),a
```

Make the border blue.

```
        ld a,(de)
        ld b,(hl)
        ex de,hl
        ld (hl),b
        bit 7,c
        jr nz,dontx
        ld (de),a
dontx   ex de,hl
        inc de
        inc hl
```

Exchange 2 bytes. Just copy up if we're initing.

```
        ld a,4
        out (0feh),a
```

Make the border green.

```
        bit 7,h
        jr z,xloop
```

Loop until done the whole 16K

```
        ld a,d
        and 40h
        or 80h
        ld (exbase+1),a
```

Switch the value of EXBASE.

```
        ld a,(23624)
        srl a
        srl a
        srl a
        out (0feh),a
```

Restore the border colour.

```
        ld sp,(spsav-32768)
        pop bc
        pop de
        pop hl
        pop af
        exx
        pop iy
        pop ix
        pop bc
        pop de
        pop hl
        pop af
exit    jp 38h
```

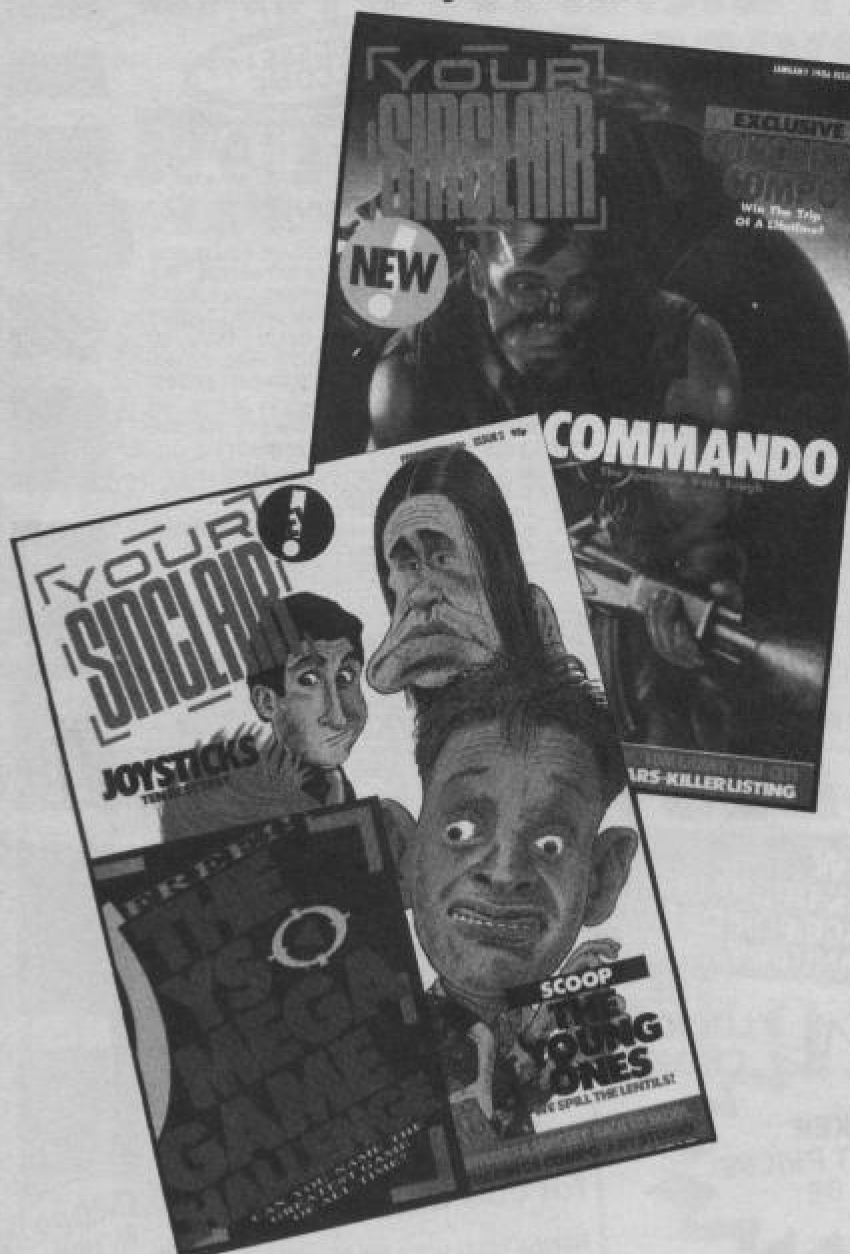
Restore all the registers and exit via the normal interrupt handler.

```
exbase  defb 00h,0c0h
count   defb 0fdh
spsave  defs 2
        end
```

Data space. EXBASE= partition to switch next. COUNT= init count (FDh to start). SPSAV= space for stack pointer.

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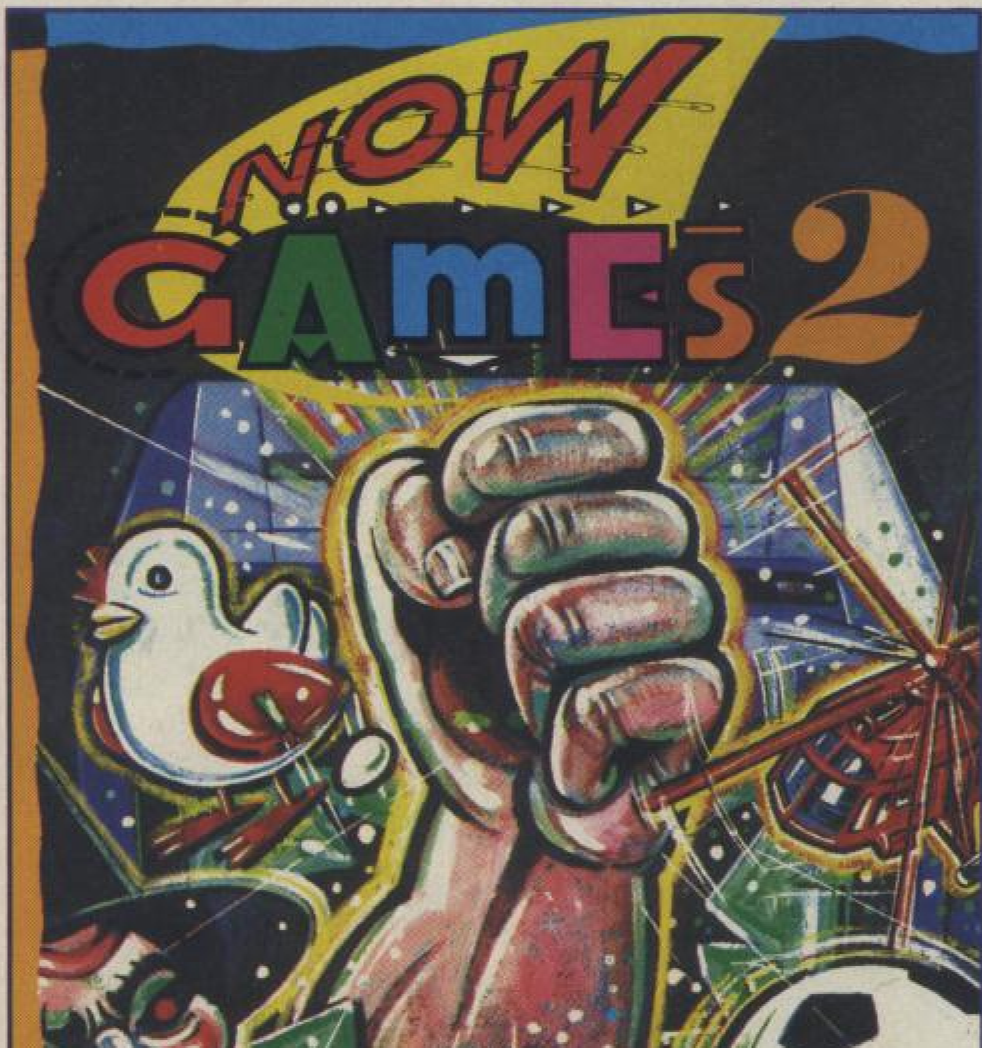
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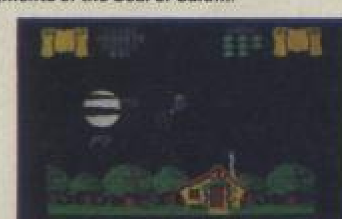




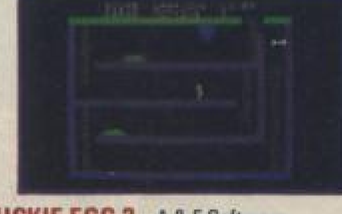
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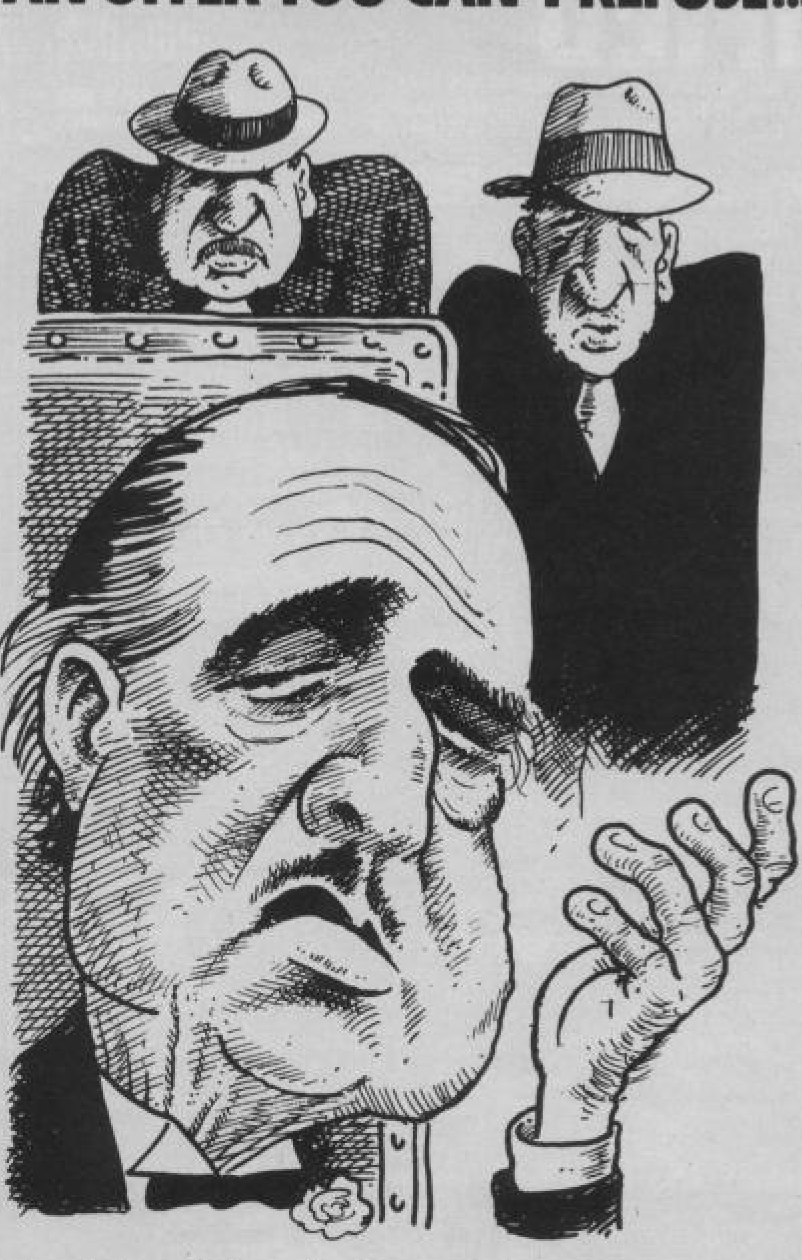
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WANTED

■ Wanted — educational software, especially *Worldwise, Countries Of The World, Map Of The UK, Geography* etc. Tel. (0385) 719766 and ask for Mrs L Murphy.
■ Wanted *MCoder III* or *YS MegaBasic*. Will swop for any three of *Fruit 2000, Fishing, Minder, Glass, Dambusters, Technician Ted* or *Skool Daze*. Tel (0970) 81680 after 6pm and ask for Neil.
■ Have much hardware/utilities for swop including SoftROM Alphacom printer. Swop for keyboard, large printer + interesting peripherals. Send your list for mine. Please write to N Oughton, Lower Rye Farm, Moreton-In-Marsh, Glos.
■ Wanted — *Understanding Your Spectrum* by Dr Ian Logan. Tel. (0785) 850495
■ Wanted: *Nightshade*. Will swop for *Gift From The Gods* and *Softaid*. Originals only. Must live near Rochdale. Tel. (0706) 848736 and ask for Paul.
■ Help! Has anyone got a circuit diagram or construction details for an RS232 to Centronics convertor for either Spectrum or QL. Please phone Mick on (0268) 417861.
■ Watford printer interface with cable and software, new! £25 ono. AGF Protocol 4 joy stick interface & cards £15 ono. Tel. Havant (Hants) 453299.
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■ Wanted!!! *Quill* or *Illustrator*. Can swop for 100 programs. Also want to swop other software. Send letter or tape to Arjan u.d. Linden, Narcisstraat 5, 2201 CG Noordwijk, Holland. Quick answer guaranteed!
■ Help! I'm a 32 year old computer virgin who got a Speccy + Alphacom printer for Crimbo along with some drongo software. What I really need are adventures, war games and simulations. Also, correspondence especially from nimble young maidens. So if you've got anything you don't want send it to me. I have arcade games to swop. *(The rest of this letter is unprintable! Ed)* Nev, 6 Derby Street, Mossley, Aston-U-Lyne, Taneside.
■ Wanted: Copies of *Minder* and *Hypersports*. Will swop for *Planet of Death, Vegas Jackpot* and *Jewels of Babylon*. All originals. Tel. 01-699 0838 and ask for Tom after 5pm.

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PEN PALS

■ Do Speccy owners over 24 still play games on them? I do and find it faintly embarrassing — write and reassure me. Paul Wells, 14 Whiteways Drive, Sheffield S4 8ET.
■ Female Speccy owner wanted to correspond with wally computer freak aged 12-15. Write to Dominic (male!) Bunn, 3 Church Road, Ashmanhaugh, Wroxham, Norwich NR12 8YL.
■ Pen pal approx 12 wanted to swop games, POKEs and tips. I have over 120 games to swop and most of the latest titles. Jacob Lomax, 16 Moss Delph Lane, Aughton, Nr Ormskirk, Lancs L39 5DZ.
■ I am a 13 year old boy and like to play any sort of games. Would like pen pal, boy or girl. Contact Henrik Bromley, 1 Monroe Drive, London SW14 7AR.
■ English pen pal, male/female, wanted (14-17) to swop programming tips (Basic/mc) and homemade programs. Helgi Happorison, Blöndulakki 11, 109 Reykjarik, Iceland.
■ Pen pal wanted to swop games hints and tips. Write to Raymond Fröde, Ode Baltens g.42, 68100 Kristinehamn, Sweden.
■ I'm a ten-year-old boy who would like a male pen pal to swop tips and games. Send a sae to Steven Mann, Church Farm, Little Eversden, Cambs CB3 7HQ.
■ Speccy owner, 14, wants a pen pal to swop games and tips with. I have over 200 games. Please write to Mikael Severin, Svangatan 8G, S-803 59 Gävle, Sweden.
■ Lonely male hacker needs female pen pal. My interests include; Spectrums, Rugby, Soccer, girls. Please write to Andrew H., 34 Abbot Croft, Westhoughton, Bolton, Greater Manchester BL5 2ET.
■ Wanted, pen pal for POKEs, hacking, etc. Boy or girl age 12 to 13. Write to Simon Grey, 49 Chapel Street, Newhaven, Sussex BN9 9QD.
■ Wot no ladies? I am old (30!) and love communicating, males, females, letters, tapes, inland or overseas, sane or loony write now! Dave Burns, 46 Old Heath, Heathgates, Shrews, Shropshire.

MESSAGES, CLUBS & EVENTS

■ For sale! *YS* issues 4, 6, 7, 8, 9, 10 and 11. All in excellent condition — offers please to J Freeman, 29 Ferndale Road, Summersdale, Chichester, W Sussex PO19 4QJ
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■ *48K User* is a great Spectrum review magazine. For a copy of the most recent edition, send 50p and a stamp to Scott Thompson, *48K User Magazine*, 40 Downe Avenue, Cudham, Kent TN14 7QX.
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■ Farewell Kay, Tea Raybobs. The evil hag from the north has finally got her way — goodbye you old fruit. Evanovitch.
■ VTX user wishes to contact other fanatics. Have user to user software, but I have no instructions (downloaded it). Please write to Paul Sammy, 89 Glenacre Road, N Carbrain, Cumbernauld, Glasgow, Scotland G67 2NT. MBX 236724460.
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■ Unemployed Users Group. All this free; software exchanges, legal advice and membership free too! Send sae to Helsoft, 86 Crewe Street, Derby DE3 8QP.

SOFTWARE

■ Swop *Daley's Supertest* or *Starstrike* for or *007 Spy* or *Tir Na Nog*, — or if you like, direct two for two swop. Tel. Gary on Sutton Elms 283342 after 6 thanks.

■ Wanted *Alien 8* and *Rally Driver* for either *Super Gran, Hustler, Underwurlde* or *Robot Riot* — must be boxed and complete.

■ Have ten games to swop inc. *Strangeloop, JSW, Knight Lore, Chequered Flag.* Will swop three for *White Lightning* and would like *World Baseball, Nodes Of Yesod* and *Elite*. Tel. Richard on Colchester 392043.

■ Got 100-150 programs to swop. Every letter answered. Write to C. Ttopuzlu Caddesi, Dr. Kazim Lakay sok., Zeynep apt 6/9, Ciftehavuzlar, Istanbul, Turkey. 81030. The name is Tughan Demirbilek. Penpals also wanted!!

■ Will swop an original Tasword Two for an original *Skool Daze* or *Starstrike*. Tel. Alun 0286 2177, Bryn Gwyn, St Davids Road, Caernarvon, Gwynedd.

■ Hello UK! Swop new super games with me. I have 500 titles. Write to Dario Zani, Abylundsgatan 18, 58236, Linkopin, Sweden.

■ Got all Ultimate, *Marsport, Nodes, Exploding Fist*, plus 180 more — swop for *Tapper, Dun Darach*, etc. Write to Mike Renshaw, 74 Laira Street, Warrington, Cheshire WAZ 7HF. Tel. (0925) 58187.

■ Swop *Star-Trader, Galactic Patrol, BMX Racers, Survival, Hunter Killer* for *Knight Lore, Alien 8* or *Underwurlde*. Tel. Peter on (061) 442 9208.

■ Swop *Adventure Quest, Tir Na Nog, Backpacker's Guide* for *Valhalla, The Hobbit, Quest for Holy*, joystick. Will swop separately. Tel Nicholas on Maldon 0621 828433. After school hours please.

■ Swop *Voyage Into Unknown, Alien Kill, Rifle Range, BMX Racers, Apollo 2* for *Raid Over Moscow, Matchpoint*, and either *Knightlore, Alien 8, Atic Atac, Sabre Wulfe, Underwurlde* — will swop separately. Tel. Gary on Northwich 47140.

■ Swop *Dun Darach* for *Erik The Viking*. Paul Renfrew, 11 Meikleben Brae, Lennoxtown, Glasgow G65 7BV.

■ I will swop *Cookie, Rapedes, Warlock Of Firetop Mountain, Weetabix and the Titches* for *Monty Mole* and *Monty On The Run*. Tel. Robert on (04302) 3515.

■ I'm a software swopper with over 300 games to exchange. Write to Matthew Hook, 5 Rocky Lane, Bournheath, Bromsgrove, Worcs. B61 9HP.

■ Will swop *Space Shuttle, Flight Simulation, Cookie, Pssst*, for good condition original *Hobbit*. Write to Conn Lehane, Lissacreasig P.O., Macroom, Co Cork, Eire.

■ I have over 500 programs to swop. Please write to Edmund Behrendorf, Uuelheimer Weg 14, 5401 St Sebastian, West Germany.

■ Swop *Matchday* or *Shadowfire* for *Arnhem DTD, Atic Atac, Stonkers, Oracle Cave*. Tel. Antony on (0602) 384291 after 5.

■ Swop *MCoder, Tribal Trouble, Jetpace* and *Cavelon* for working DK Tronics light pen. Tel. Darren on (0993) 882439.

■ I have *Planetoid* and *Reversi*, both brand new and unused, will swop for *Booty, Hungry Horace, Cylu* or *Action Biker*. Tel. (0302) 21504 — ask for Marc.

■ Many new titles to swop. Write to E Gerritsen Mullies, Baankamp, 18, 7462 TD, Rijesen, Holland.

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■ Swop *Frankie, Daley Thompson's Decathlon* and *Quill* for *Knight Lore*, also over 50 recent titles to swop. Write to Alex Lockwood 76 Woodside Green, South Norwood SE25 5EU. Tel. 01-656 3138.

■ Swop *Alien 8* for *Nodes Of Yesod* and *Cyclone* for *Monty On The Run* and *TLL* for *Fighting Warrior*. Will swop separately. Tel. Hindley 55633 after 4 pm and ask for James.

■ Swop *White Lightning* and Trig-a-Command joystick for Currah Micro Speech or any good Speccy software if interested please ring Scunthorpe 720479 and ask for Paul.

■ Will swop *Ghostbusters, Knight Driver, Booty, Mr Wimpy, Scramble, Jaws, Robot Riot, W Of Firetop Mountain, Trashman, Scuba Dive, Alien Attack* for VTX 5000 Modem. Write to Jonathan Cooke 26 Percy Rd, Hampton, Middx.

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■ Swop *Red Moon* for *Emerald Isle*. Paul Renfrew, 11 Meiklebin, Brae, Lennoxtown, Glasgow G65 7BU.

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BACKLASH

Iolo Davidson on the new Spectrum — is its number up?

I do hope the prospect of a new and 'bigger' Spectrum, on the lines of the Iberian variant, coming in the new year did not put anyone off buying a proper British Standard version at Christmas. Unfortunately, it's inevitable that some potential purchasers were mesmerised by the numbers 128 and became hysterically unable to get their hands into their wallet pockets. After all, everyone knows that a 125cc motorbike is much more powerful than a 49cc moped, so obviously a 128K computer is nearly three times as good as a 48K one.

Hee, hee!

It's a long time now since I saw a transistor radio that had the number of transistors it used emblazoned across the front of its escutcheon, but radio manufacturers used to do that. It was a way of impressing people who were ignorant of any aspect of radio circuitry that one tranny was better than another. This made a little bit of sense because more sophisticated receiver circuits generally required more bits to make them up, though no one ever advertised a radio as having 22 resistors and 9 electrolytic capacitors.

Part of the reason this emphasis on semi-conductor content faded away was that the price of transistors dropped to the point where it was cheaper to design a circuit to use lots of transistors rather than lots of, say, coils. Some radios were even produced that had extra transistors soldered into any spare corner without even being connected to the circuit! But the real reason the practice died was not that the numbers had become inflated and confusing, but because other buzzwords had arisen, like FM, AFC, and IC. No one's impressed by transistors anymore.

The Spectrum 128 (the Spanish one — I haven't seen a British one yet) has a few new features that are genuinely useful, but the bigger memory is just a marketing ploy. The idea is to kid new buyers who don't know any better, that the new Spectrum is comparable to the Commodore 128, or the Beeb 128, or the Amstrad 128, and that it's not being left behind. They can, therefore, make their momentous decision on the basis that "both computers on my shortlist are 128K, but the Spectrum has more software."

It's only after they've got it home that they'll find out that most of that memory is switched off whenever they're actually running any of the programs in the enormous Spectrum software base. But don't worry, the same thing is true of the expanded Commodore and bumped up Beeb. The extra memory is not there to be used, it's just been chucked into the box so that '128K' can be stamped on the front. It costs practically nothing to include it and it does allow the anxious punter to buy the computer he wants without feeling that he has made some kind of technological faux pas. And those extra K are even connected into the circuit — no cheating here!

Those of us with older Spectrums needn't worry, either. No sane software writer (yes, I know they're not all sane) is going to produce software for the new computer that won't run on the several million 48K Spectrums that have already been sold. You might as well write programs for the Enterprise.

Certainly Tasman will patch their word-processor to be able to use the new built in RS232 port, and someone else will produce a program using the Midi output. These are specialist applications that have a limited market anyway, so the software houses don't expect to sell to everyone. Besides, such programs are already accustomed to providing a variety of add-on interfaces. However, I predict that both RS232 and Midi will be frustratingly non-standard and tricky to use, à la Interface 1.

Putting the sound through the TV is a big improvement, and one that'll work with all the old software. The three channel sound chip is something else. If it's really only available in 128K mode, then no one will use it for games. If it can be accessed in 48K mode then some games may have two sets of sound routines and test which computer is being used before selecting the form of sound output.

We won't be able to tell if it's worth buying the 128K for the improved sound, colour monitor output (how many can afford a monitor?) and an RS232 that, I predict, won't work with a full duplex modem, until we know the price. It can't be worth much extra, as you can already get these things in add-on form quite cheaply if you want them. In fact, you can have extra paging memory in add-on form if that's your thing.

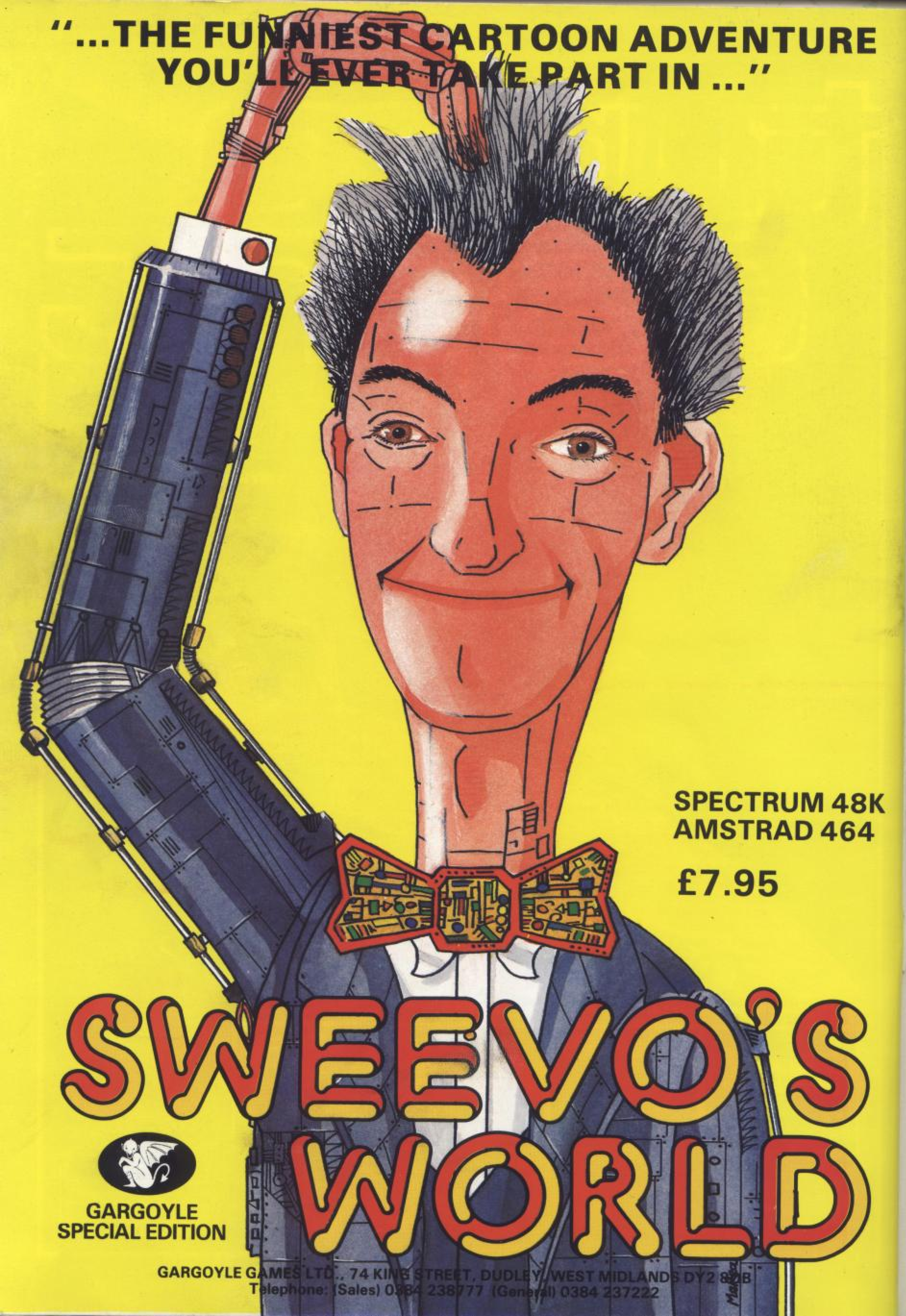
You won't get the improvements without problems, either. The new computer will suffer from hardware incompatibility with some of the add-ons made for the old machines. Is it worth junking your Centronics interface or maybe even a disk set-up just to get some extra memory that you aren't going to use? How much will it cost you to replace your VTX500 modem with something that doesn't get tangled up in the 128's paging hardware? The more I think about it, the more I reckon that the best thing about the 128, when it comes, is going to be the consequent big drop in price for the old models.

Maybe it is impossible to upgrade the Spectrum usefully and still have Spectrum compatibility. Still, there are improvements I'd have rather had than extra memory, like a built in disk, or if you must, a microdrive. And why still no joystick port? Why, above all, treat us to a calculator keypad on the end of a bit of curly cable? No one, even in Barcelona, could possibly believe that two nasty, tacky keyboards is an improvement on one nasty, tacky keyboard. Surely the extra resources would have been better spent on a real keyboard at long last?

No doubt the 'new improved' Spectrum will sell, but if you're serious about upgrading to an advanced computer, the time will probably come when you just have to abandon your Speccy and its plentiful software. Not yet awhile, but someday. Maybe when they get the QL sorted out.

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